

The Journal of Higher Education

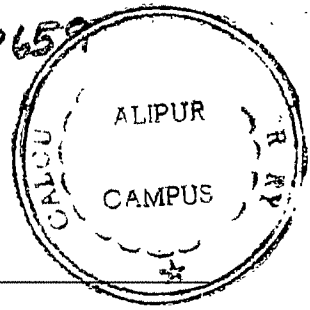
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The Journal of Higher Education

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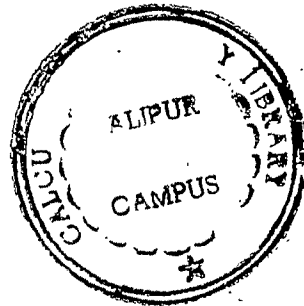
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The Journal of Higher Education



WILLIAM G. TIERNEY

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Organizational Socialization in Higher Education

This article focuses on socialization processes that involve tenure-track faculty in four-year colleges and universities. It presents a two-year study of promotion and tenure in which over three hundred individuals were interviewed. The author takes issue with previous "modernist" views of socialization and offers a schema based on postmodernism for how we might think about organizational socialization.

STEPHEN D. GRUNIG

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Research, Reputation, and Resources: The Effect of Research Activity on Perceptions of Undergraduate Education and Institutional Resource Acquisition

A factor analysis of 127 private and public universities finds that graduate and undergraduate academic reputations are largely explained by the same two factors, size and selectivity. Institutional research activity appears to be the most essential component of the size factor. It is proposed that reputation strongly influences college attendance choices, tuition setting, and other decisions directly affecting institutional resource acquisition.

W. BRUCE COOK

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Fund Raising and the College Presidency in an Era of Uncertainty: From 1975 to the Present

Since 1975 the expectations, resources, technical sophistication, frequency and size of campaigns, and level of intensity associated with fund raising have increased dramatically on the nation's campuses and among nonprofits generally. This has resulted in a preoccupation by the popular media and in practitioner-generated literature with the involvement of college and university presidents in fund raising. A context for understanding this phenomenon is provided.

AYSAN SEV'ER and SHELDON UNGAR

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No Laughing Matter: Boundaries of Gender-Based Humour in the Classroom

Based on a survey of first-year university students and faculty, this study assessed the effects of gender and status on tolerance for gender-based humour and the impact of the same factors on acceptability of such humour in the classroom, at social gatherings, and at family parties. Results showed tolerance ratings were determined by gender as well as status and their interactions. Implications of findings within shifting gender relations are discussed.

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ANA M. MARTÍNEZ ALEMÁN

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Understanding and Investigating Female Friendship's Educative Value

This article presents research which suggests that college women's friendships are learning relationships in which intellectual play and performance are risk-free and in which college women reconcile the constructed barrier between autonomous and interdependent learning and engage in a dynamic articulation of thinking and knowing. The implications of the value and power of this relationship for higher education pedagogy, research, and practice are discussed.

DON HOSSLER, JON P. LUND, JACKIE RAMIN,
SARAH WESTFALL, and STEVE IRISH

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State Funding for Higher Education: The Sisyphean Task

Using multivariate statistical techniques and selected interviews this study explores relationships between tuition levels at public institutions, state subsidies for public institutions, and state financial aid programs. Results indicate few states are systematically addressing issues of affordability. There are no statistical relationships between these key variables. Possible explanations for these findings are explored.

JAMIE-LYNN MAGNUSSON

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Higher Education Research and Psychological Inquiry

This article is a critical examination of psychological inquiry as it has been applied to the study of higher education, particularly in the area of teaching and learning. It outlines some of the epistemological characteristics of psychological contributions to higher education scholarship and shows how these characteristics relate to the intellectual and methodological traditions by which psychology defines itself as a discipline.

THOMAS LI-PING TANG and
MITCHELL CHAMBERLAIN

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Attitudes Toward Research and Teaching: Differences Between Administrators and Faculty Members

Results of a factor analysis of survey data from educational leaders and faculty members of six regional state universities identified six distinctive attitudes: research orientation, teaching orientation, rewards influence research, rewards influence teaching, personal interest, and mission of the university. A multivariate analysis of covariance revealed that educational leaders differed from professors on teaching orientation, rewards influence teaching, and mission of the university.

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BURTON R. CLARK

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The Modern Integration of Research Activities with Teaching and Learning

An ideal-type concept of a research-teaching-study nexus points to research activity that serves as a mode of teaching and a means of learning. In university construction of the nexus, under modern conditions, the traditional mentor-apprentice relationship has been enlarged into departmental frameworks of interrelated teaching groups and research groups. A culture of inquiry retains important educational advantages throughout higher education.

JOHN C. SMART, GEORGE D. KUH,
and WILLIAM G. TIERNEY

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The Roles of Institutional Cultures and Decision Approaches in Promoting Organizational Effectiveness in Two-Year Colleges

Institutional cultures and decision approaches are shown to be strong influences on the organizational effectiveness of two-year colleges. In addition, institutional leaders may reduce the negative influences of declining enrollment and financial conditions on organizational effectiveness through efforts to instill the attributes of clan and adhocracy cultures and rational/collegial decision approaches.

TERRENCE MECH

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The Managerial Roles of Chief Academic Officers

This study identified managerial roles that are emphasized by chief academic officers. Role group rankings did not vary according to CAOs' gender, type of appointment, institutional sponsorship, or the presence of collective bargaining. Relationships were shown to exist between some personal and organizational factors and CAOs' emphasis of interpersonal roles.

MARCIA L. BELLAS

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Disciplinary Differences in Faculty Salaries: Does Gender Bias Play a Role?

This study examines the effects of the labor-market conditions and sex composition of sixteen academic disciplines on the average 1988-89 entry-level salaries of faculty. Findings from both cross-sectional and dynamic models show that, after controlling for the effects of human capital and productivity measures, labor-market conditions influence average salaries, but so too does the sex composition of academic disciplines.

Predicting Student Loan Defaults

This study estimates some economic, social, and psychological influences upon defaults on education loans. A logistic regression model was developed for 1,117 borrowers drawn from a 1987 national survey. Besides certain precollege traits and high GPAs, I find that postcollege employment congruent with the undergraduate major reduces default, but institutional selectivity, sector, and loan counseling do not.

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Teaching on Solid Ground: Using Scholarship to Improve Practice, by Robert J. Menges, Maryellen Weimer, and Associates

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and GINGER M. MARINE

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State Policy and the Public Research University: A Case Study of Manifest and Latent Tensions

State postsecondary policy-making processes can evoke or avoid public consideration of underlying tensions in postsecondary education. This case study of the imposition of out-of-state enrollment limitations in a large higher education system suggests that the contemporary dynamics of state policy making can suppress attention to difficult educational questions.

ERIC L. DEY

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Undergraduate Political Attitudes: Peer Influence in Changing Social Contexts

Using data from four separate longitudinal data sets collected over a twenty-five-year period, this study examines how college student political attitudes are influenced by the normative context of individual campuses and by society in general. Results show campus peer and general social context to be equally influential.

MICHAEL DELUCCHI

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"Liberal Arts" Colleges and the Myth of Uniqueness

This study uses data from synopses of academic mission statements to explore the relationship between liberal arts claims and curricula. Descriptive statistics reveal that 68 percent of the colleges promoting a liberal arts mission are dominated by professional disciplines. Multivariate analysis identifies several institutional characteristics that significantly affect the probability of inconsistency between claims and curricula. Explanations for the inconsistency are discussed.

GERALD R. KISSLER

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Who Decides Which Budgets to Cut?

This study of colleges and universities found that faculty influence did not diminish when programs were closed and budgets were cut. Rather than authority being seized by the president during a financial crisis, power became more dispersed. Faculty morale was related to the severity of the financial downturn, but the amount of faculty influence over budget decisions was not.

**A Subcultural Study of Gay and Bisexual College Males:
Resisting Developmental Inclinations**

The author examines the experiences of gay and bisexual college males through a subcultural framework. The article's goal is to contextualize the diversity of gay and bisexual male expression and move away from monolithic analyses of gay student identity based on "homosexual" developmental models.

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ANDREAS ORTMANN

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How to Survive in Postindustrial Environments: Adam Smith's Advice for Today's Colleges and Universities

Adam Smith's discussion of the payment modes of teachers and their consequences for the quality of teaching and the process of curricular innovation are reviewed through the conceptual lenses of modern agency theory. Smith's analysis of higher education in his day sheds light on incentive problems that currently afflict higher education and provides important policy prescriptions.

ROBERT A. SCHWARTZ

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Reconceptualizing the Leadership Roles of Women in Higher Education: A Brief History on the Importance of Deans of Women

In the 1970s Annette Weiner, following Bronislaw Malinowski, an earlier pioneer anthropologist and ethnographer, retraced his experiences with the Trobriand Islanders in the South Pacific. Weiner found that Malinowski had overlooked a critical aspect of Trobriand power, prestige, and leadership — the women. Similarly, women in higher education administration, and deans of women in particular, have been overlooked. By retracing the role of the deans and their work we gain new appreciation for women in higher education in the first half of this century.

KASSIE FREEMAN

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Increasing African Americans' Participation in Higher Education: African American High-School Students' Perspectives

In a qualitative inquiry across a range of cities, schools, and family circumstances, African American high-school students are given the opportunity to voice their perceptions of the barriers African Americans face in deciding whether or not to participate in higher education. Unlike in most other research, these students are also asked to make suggestions for programs/models to address the problems. The study leads to the conclusion that such voices provide valuable insights for researchers and policymakers.

RHONDA MARTIN EPPER

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Coordination and Competition in Postsecondary Distance Education: A Comparative Case Study of Statewide Policies

This comparative case study of Minnesota, Maine, and Colorado addresses a topic of escalating political and educational importance: state policies governing postsecondary distance education. Through qualitative interviews, observations, and document analysis, new

relationships between state policy, institutional distance education programs, and external competitive forces were revealed. In each state, distance education expanded the market for postsecondary education, raised leaders' awareness of outside competition, and challenged traditional regulatory principles of statewide coordination.

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VINCENT TINTO

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Classrooms as Communities: Exploring the Educational Character of Student Persistence

Data from a study of a learning community program in an urban community college are used to explore the educational character of student persistence. Analyses reveal that classroom activities influence student persistence by changing the way students and faculty interact within and beyond the classroom setting. Implications for current theories of persistence are discussed and a modified theory proposed.

DONALD E. HELLER

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Student Price Response in Higher Education: An Update to Leslie and Brinkman

In 1987 Leslie and Brinkman published an important review of the literature on the relationship between price and enrollment in higher education. Since publication of their article many student demand studies have been released. This article summarizes the results of many of these key studies in light of Leslie and Brinkman's findings a decade ago.

PATRICIA A. RUPERT
and DEBORAH L. HOLMES

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Dual Relationships in Higher Education: Professional and Institutional Guidelines

Data from a content analysis of professional codes and a national survey of colleges indicate that, with the exception of sexual harassment policies, professions and institutions offer few formal policies or guidelines related to faculty-student relationships. The need to address ethics of dual relationships in higher education is discussed.

J. DOUGLAS TOMA

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Alternative Inquiry Paradigms, Faculty Cultures, and the Definition of Academic Lives

Using qualitative methods, I explore how paradigm choices influence scholars' professional lives in a single discipline, law. I contend there is a paradigm culture that operates in conjunction with other faculty cultures and suggest where my findings might extend to related disciplines, particularly those in the social sciences.

REVIEW ESSAY

Aptitude Revisited: Rethinking Math and Science Education, for America's Next Century, by David Drew.

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Criteria for Selection: Papers are evaluated on the following points: *Form:* writing style and readability; logical development; appropriate length; appropriateness of author's stated objectives to treatment as defined below. *Content:* significance to *JHE* readers. Additional criteria are based upon the following manuscript orientations: as a research paper, as a technical paper, as a professional practice paper, as a literature review, and as a policy paper. It should be emphasized that the editors respond most favorably to manuscripts that evidence both a freshness of vision and a vitality that may be informed by, but certainly go beyond, methodological qualities and that are in congruence with our publishing goals and directions. The most effective approach in learning about our interests is to read previous issues of the journal. We expect that authors, the journal, and the field will develop through the publication process.

Organizational Socialization in Higher Education

A fact is like a sack which won't stand up when it is empty. In order that it may stand up, one has to put into it the reason and sentiment which have caused it to exist.

Luigi Pirandello
Six Characters in Search of an Author

Socialization is a concept that is much discussed but frequently misunderstood. On the one hand, the research literature is replete with taken-for-granted definitions of socialization; on the other, institutional administrators often eschew discussions of socialization as a waste of time in comparison to their attempts to solve the myriad problems currently faced by colleges and universities. In this article I advance an alternative view of socialization and highlight the importance of utilizing this view for restructuring college and university life.

More specifically, I take issue with many of the common assumptions we share about organizational socialization. In so doing, I suggest that socialization is of fundamental importance with regard to many of the most pressing issues that confront academic administrators and faculty. The national conversations that have begun, for example, about the nature of faculty roles in academic and public life inevitably relate to

The author acknowledges the helpful comments of Ann Austin, Clifton Conrad, Patrick Dilley, Jussi Valimaa, and two anonymous reviewers.

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socialization and culture. In particular, I focus on socialization processes that involve tenure track faculty in four-year colleges and universities. This article is anchored in a two-year study of promotion and tenure based on interviews of over three hundred individuals — junior faculty, department chairs, tenure review committee chairs, and senior academic administrators. To be sure, the specific tenure processes vary dramatically from institution to institution; nevertheless, these processes are similar enough across institutional types to enable us to propose a schema for how we might think about organizational socialization and how we might develop policies that contribute to the successful socialization of faculty into the academy.

As a beginning point, we need to consider the nature of the organizational culture in which individuals are socialized. Obviously, a culture whose values and goals are outdated or inconsistent with the world of the twenty-first century is not necessarily a culture for which we want to socialize new recruits. Accordingly, I first critique previous concepts of socialization as they relate to culture and then offer data that delineate an alternative way we might think about how faculty become socialized. I compare and contrast what I call “modern” and “postmodern” versions of culture and socialization and conclude with suggestions for improving the socialization practices of colleges and universities.

Studying Socialization

Background

“Organizational researchers,” writes John Van Maanen, “have overstudied relatively harsh and intensive socialization and understudied socialization of the more benign and supportive sort” (1984, p. 238). Dramatic, celebratory rituals, such as Founder’s Day, or graduation, or initiation rites of fraternities, afford us one window of understanding how individuals change from one social status to another or how they become incorporated or invested in an institution or discipline. In this regard the organizational literature is full of examples, from army cadets who arise at dawn and conduct drills and marches that demonstrate loyalty to the academy and their unit to various social groups, such as university marching bands and college honor societies, where the members perform hazing rituals on recruits that bond individuals to the group.

Admittedly, such highly visible events surely play some role in organizational socialization, and our concentration on such examples has been helpful in rethinking actual events. Hazing, for example, is no

longer officially condoned on college campuses, because whatever bonding might have taken place was outweighed by the physical and emotional trauma that often occurred to recruits. However, when we concentrate on such dramatic actions, we overlook the more implicit and processual activities that circumscribe how individuals become socialized to an organization. There is virtually no research that supports the view that individuals in organizations such as colleges and universities are socialized primarily through major flash points such as a “reality shock” or an abrupt ritualistic transition. Indeed, often our assumptions about socialization in higher education are folk wisdom that we derive from personal experience in our own organization, but we lack empirical data to support these assumptions.

I suggest that we learn a great deal about, and become socialized to, an organization from the less dramatic, ordinary daily occurrences that take place as we go about the normal business of being a professor, student, administrator, or staff member. Such a point is not merely of theoretical interest. At a time when we hear daily calls to reorient the culture of our organizations so that certain values and processes receive higher prominence (e.g., teaching, advising students, service), we need to consider socialization’s processes in their entirety, as opposed to limiting ourselves to isolated examples that serve as grand transitional markers from one stage to another. In effect, if we are socializing people to a cultural ethos that we no longer desire, then it is clearly important to understand the underpinnings of socialization so that we might socialize people to different objectives and goals.

In the following I will first discuss a “modernist” view of culture and socialization and then turn to a “postmodern” interpretation. My intent is to contrast modern and postmodern definitions of culture and socialization, and of consequence, raise questions about how we socialize people to the organizational world.

A Modernist Perspective

In higher education, we often speak of socialization as if it were a unitary and rational process embedded in an understandable culture. Culture gets defined as the sum of activities — symbolic and instrumental — that exist in the organization and create shared meaning. The definition of socialization pertains to the successful understanding and incorporation of those activities by the new members of the organization.

Weidman, quoting Brim, stated that socialization is “the process by which persons acquire the knowledge, skills, and dispositions that make them more or less effective members of their society” (1989, p.

293). Dunn, Rouse, and Seff echoed Weidman by stating that socialization is “the process by which individuals acquire the attitudes, beliefs, values and skills needed to participate effectively in organized social life” (1994, p. 375). Bragg pointed out that “the socialization process is the learning process through which the individual acquires the knowledge and skills, the values and attitudes, and the habits and modes of thought of the society to which he belongs” (1976, p. 3). In an article on organizational culture Tierney defined socialization by asking, “What do we need to know to survive/excel in the organization?” (1988, p. 8). Kirk and Todd-Mancillas were similarly instrumental in their definition by linking socialization with academic “turning points” in an individual’s life (1991, p. 407).

In large part all of these definitions are more similar than they are dissimilar. Most important, they use as their base Robert Merton’s (1957) ideas about socialization within a society and apply them to an organization. Thus, culture is the sum of activities in the organization, and socialization is the process through which individuals acquire and incorporate an understanding of those activities. Culture is relatively constant and can be understood through reason. An organization’s culture, then, teaches people how to behave, what to hope for, and what it means to succeed or fail. Some individuals become competent, and others do not. The new recruit’s task is to learn the cultural processes in the organization and figure out how to use them.

A modernist framework affords two viewpoints of the culture of an organization. One view mirrors anthropological notions of cultural relativism. The researcher studies culture and socialization in one college and then in another. One culture is not better than another, only different. The goal is to develop a taxonomy of cultures that demonstrates the diversity that exists.

The second modernist view of culture is to find cultures that are aberrant and in need of repair. This view mimics the cultural deficit model of racial and ethnic groups that focused on the deficiencies of particular groups as an explanation for why they were poor, outcast, and so on. One goal of the deficit model is to explain deficiencies in a group so that they can be changed. Thus, in modernism we may investigate the socialization processes of an institution and merely observe that there are multiple paths for enabling people to “acquire knowledge,” or we may decide that one institution does a poor job of teaching its recruits about itself. Regardless of the view — cultural relativism or cultural deficit — the theoretical underpinnings about how one conceives of culture and socialization are similar: the culture of the organization is coherent and understandable. The modernist task of socialization is for

the recruit to learn the culture. To be sure, learning is ongoing; nevertheless, the goal is to incorporate the mores of the organization's culture.

A Postmodern Perspective

Before considering how we might think about culture and socialization within a postmodern framework, it will be helpful if I offer postmodernist concerns with previous definitions of culture and socialization: (a) the modernist assumption is that socialization is a process where people "acquire" knowledge, (b) socialization is viewed as a one-way process in which the initiate learns how the organization works, and (c) socialization is little more than a series of planned learning activities.

On the surface there is a good deal of what we might think of as common sense in these three modernist assumptions. A new faculty member joins a university, for example, and "acquires" the habits that it takes to succeed. In short, he or she "learns the ropes." Similarly, the idea that new people learn old organizational ways usefully assumes that the organization has a culture or set of processes that need to be learned. As such, socialization is a process that pertains primarily to new members of an organization; the new faculty member needs to learn what is expected of him or her with regard to virtually every aspect of the job. By contrast, when a professor becomes a department chair or an administrator, further socialization occurs, but at this stage the individual socializes himself or herself to a role rather than to the entire organization.

The problem with such definitions is that they endorse a rational view of the world in which reality is fixed and understandable, culture is discovered, and the individual holds an immutable identity that awaits organizational imprinting. A different way to think about culture and socialization is based on postmodernism. Although it is beyond the scope of this article to present a critique of the strengths and weaknesses of postmodernism, I offer the scaffolding for how I use postmodernism to think about and analyze culture and socialization.

"Postmodernism," Bloland argues, "points out that totalization hides contradictions, ambiguities, and oppositions and is a means for generating power and control" (1995, p. 525). As opposed to the modernist version, then, culture is not simply the sum of the tasks that occur in the organization. To the contrary, McDermott and Varenne note, "Being in the world requires dealing with indefinite and unbounded tasks while struggling with the particular manner in which they have been shaped by the cultural process" (1995, p. 337). Culture is the interpretation the

organization's participants give to Pirandello's sacks/facts. Such an interpretation of culture offers a portrait of an organization that is much less determined than that of modernism. In effect, culture is "up for grabs" or contestable. To be sure, constraints exist by way of historical and social forces, but multiple possibilities exist to reinscribe culture with alternative interpretations and possibilities.

From a postmodern perspective, then, culture is not waiting "out there" to be discovered and "acquired" by new members. The coherence of an organization's culture derives from the partial and mutually dependent knowledge of each person caught in the process and develops out of the work they do together. Culture is not so much the definition of the world as it is, but rather a conglomeration of the hopes and dreams of what the organizational world might be. Because culture is constantly being re-created, this view of socialization derives from a fundamentally different vantage point than if we assume that ideas, habits, and skills await incorporation by the newcomer. "Life in culture," McDermott and Varenne remind us,

is polyphonous and multivocalic; it is made of the voices of many, each one brought to life and made significant by the other, only sometimes by being the same, more often by being different, more dramatically by being contradictory. Culture is not so much a product of sharing, as a product of people hammering each other into shape with the well-structured tools already available. We need to think of culture as this very process of hammering a world (1995, p. 326).

The modernist assumption that an organization's culture is coherent implies that all people in the culture are the same. A socialization process can be developed that is unitary — one size fits all — and the outcome can be developed on specified outcomes — all candidates need to achieve a particular goal. When we think of culture in this manner it is easy to see how a culture will have winners and losers, misfits and fully incorporated members. If the purpose of socialization is assimilation, then those who do not learn the correct ways to assimilate will have failed.

However, insofar as socialization is a cultural act, I suggest that it is an interpretive process involved in the creation — rather than the transmittal — of meaning. Culture is not discovered by unchanging recruits. Rather, socialization involves a give-and-take where new individuals make sense of an organization through their own unique backgrounds and the current contexts in which the organization resides. Hazing is a good, albeit overly dramatic, example of my point. In the late twentieth century we think of such actions in a decidedly different manner from individuals who condoned hazing on college campuses fifty years ago.

Today it is often considered not only dangerous but also immature and anti-intellectual by a broad spectrum of the college community, whereas bonding of this kind was viewed positively only a generation ago. But even then, all individuals did not interpret the hazing ritual in a similar manner: some recruits saw it as a price one had to pay to join the club and little more, whereas others suffered psychological and/or physical consequences for life.

A postmodern view of organizational culture argues that we ought not think of socialization as a series of social acquisitions that occur in unchanging contexts irrespective of individual and group identity. Individuals do not “acquire” static, sedentary concepts. Socialization is not simply a planned sequence of learning activities where recruits learn one fact and then another. And these “facts,” as Pirandello’s opening quote highlights, are open to manifold interpretations.

If socialization is a process through which individuals acquire skills to be “effective members of their society” (Weidman, 1989, p. 293), then we have a unitary view of what it means to be effective. At a minimum we ought to ask ourselves what the implications are when a man or a woman, an Anglo-American, African American, or Latino, a physically challenged or able-bodied individual undergoes socialization. Is socialization nothing more than assimilation — organizational “melting pots” — where successful incorporation means all people march to the same institutional drummer? Do the participants in the organization have any obligation to change, or does the onus of socialization reside strictly with the recruit? Do individuals and groups interpret reality differently?

I focus on these questions with two overriding thoughts: First, what are the implications for an organization that views all of its new recruits from a similar perspective? Second, if we agree that the organizational culture itself has problems, then how might we reconfigure socialization processes? The faculty responses given in the interviews reveal the limitations and problems of today’s universities and colleges and raise concerns about the attempt to socialize faculty to organizations that are predicated on problematic assumptions.

Socialization and Tenure

Background

One way to understand socialization is from the perspective of those who are being socialized — the recruits. Junior faculty offer a wealth of information about how academe incorporates new members into the academy, and in doing so they teach us about organizational norms, val-

ues, and culture. Between 1992 and 1994 I was involved in a project that interviewed over three hundred individuals, 90% of whom were junior faculty from eight colleges and universities in the United States. The institutions were located throughout the country and comprised a mixture of public/private, and small, medium-sized, and large colleges and universities. Within each institution faculty from different disciplines and colleges were interviewed. For example, at one institution I interviewed junior faculty in the Colleges of Business, Education and Engineering, and faculty in chemistry, biology, history, classics, political science and Spanish. The intent was to develop as wide a net as possible with regard to junior faculty perceptions of the tenure and promotion process.

The data that I offer here deal specifically with various aspects of faculty work (e.g., teaching, research, service). Van Maanen (1976, 1983, 1984) speaks of socialization occurring in two frames: anticipatory and organizational. Graduate school and job interviews might be considered primary avenues for exploration of anticipatory socialization. Mentoring and the actual year-long process when a candidate comes up for promotion and tenure are other examples of organizational socialization. Faculty work, however, is the primary arena for organizational socialization to occur in a processual manner, and it highlights the concerns noted above about how individuals learn culture.

Faculty Work

Faculty work for, and are socialized to, academic rewards that are located in a cultural system. In the following section I discuss the intensity of the culture as defined by those who experience it, by the nature of the work, and by the specific units of faculty work — teaching, research and service.

Pace of work. The intensity of work during the academic year was characterized similarly by virtually all faculty, regardless of institutional type or discipline: "I work seven days a week," said one individual, "and I mean seven days a week." A second person said, "I take Friday afternoons off — they're for myself, and I get Sunday mornings for my family. Other than that I work every day." "I get up by five so I can write," commented a third person, "and then I get to work by eight and stay here until about seven." Another person added, "I always leave the office by six so I can have dinner with my family, but once the kids get to sleep, I probably work another two hours. I have to. I have no choice." Across the sample, over three-fourths of the faculty commented that they worked at least three nights a week, and more than

90% said they worked for more than four hours at least one day during the weekend.

For women faculty, working long hours was also a way of demonstrating that they were equally committed to their careers as their male colleagues and they worked hard in order to prove their single-mindedness. One woman made the following observation: "In the first year I noticed how much women faculty talked about how much they worked. It seemed to have a competitive flavor: 'I was up until 2 in the morning,' 'well, I was up until 3 and I'm on 80 committees, and blah, blah, blah.' I got the sense that the more overworked you were the better faculty person you were."

In the summer, faculty were involved in different activities, but they were equally busy. "I have taken a week with my wife and child in August," said one fourth-year professor, "but this year and next I can't because of tenure." "I like summer because there are no meetings. I still work every day, but I don't have to work in the evenings as much; that's nice," said another individual. A third person added, "I stay home all summer, but it makes me more neurotic, frankly, because then I feel I have to work all the time. I can't remember a day last summer when I totally just vegged out." A fourth person concurred, but from a different angle: "My office is air-conditioned and the students aren't around, so I come in early, put on a pot of coffee, and get to it. The kids are home in the summer, so it's not as convenient to work at home. I actually come here more often in the summer." "Summers are a time when I feel terribly isolated and alone. . . . I need to devise a system of checking in with a few people. . . . I don't labor alone very well," said a man who assumed he worked more effectively when he had colleagues with whom to talk or collaborate on writing projects.

Faculty effectiveness. Given such observations, one may well wonder about the efficiency and nature of faculty work. Perhaps faculty are simply inefficient, and part of socialization is learning how to make better use of their time. It also may be that every professional works as hard as the faculty portrayed themselves as working. Perhaps the engineer or businessperson has a similarly fast-paced worklife. As one individual lamented, "I'm not a factory worker. This isn't a nine-to-five job. I guess most people would say they like the freedom of faculty life, but it's a weird freedom, isn't it? The freedom to work all the time." A second person made a similar point: "Everything I do is time-consuming. If you grade papers the way you're supposed to, it takes time. They need to see your comments. And my research, my writing is not something I just sit down and type out and I'm done. I have to think, think,

think.” Another person added, “When I’m in my lab, I can’t force results. Sure, there are ways I’ve learned to be more efficient, but experiments and ideas are not just putting things together. It’s messy.” A final observation comes from a faculty member who thinks of himself as primarily a researcher:

It’s funny. I’m paid to do my research. I spend lots of time at it. But I enjoy working with students, and I make myself as available as possible to them. I even hold some office hours on Saturday mornings because I know there won’t be interruptions. I have my grad students over to my house all the time. I have no time for myself, and sometimes that causes troubles at home. I’ve got to find a balance.

A comparative perspective on the pace of work in other professions was provided by many faculty members in business, engineering, or the sciences who previously had been in industry or business. Interestingly, virtually everyone said they worked harder and spent longer hours in their academic positions. “There’s no comparison,” said one person. “I worked a lot in my last job, sure, but it was not like this.” Another person went a step further: “My work is neverending here, and the pace is relentless. I don’t know if I can keep at it, and I am seriously considering returning to industry. Better hours, better pay.” A third person stated, “I had no idea what I was in for. The problem is that you never know how much is enough, and you want to do a good job. If you take yourself seriously, that means you just keep working. At [his business company] I knew when I had done a good job. I’d blow off steam and then start on another project. Not here.” A fourth person compared the pace of life to a triathlon:

I don’t know if I am a distance runner, biker and swimmer. I feel like I’m asked to do everything at once and all the time. At work I had one job, one task, and maybe one on the drawing boards. Here, you have one project going, one in planning, one or two you’re writing grants for, and the constant submission/revision of articles. Then there are the students. My graduate students line up outside the door, the undergraduates want their exams back, and somebody’s always in crisis. And then there’s the service side where you’re asked to sit on committees. Who can do all this? Whoever thinks faculty life is the leisurely pursuit of knowledge should follow me around for a while.

Teaching. Junior faculty also tend to segment their lives into separate domains of teaching, research, and service. “I’m not good at giving tests,” admitted one assistant professor, “and yes, I know there’s an instructional development center on campus. After tenure, I’ll probably go there. I don’t have time now.” “I heard of one person who was told her teaching scores were too high,” said another untenured faculty member.

"If your scores are too high, it means you're spending too much time on teaching." "I like to teach," commented a third person, "but it's not valued." A fourth person said, "I'm a perfectionist, and the system doesn't like it. I'm an okay teacher. I get good scores, but I could be better, but if I spent my time improving, I wouldn't get tenure."

In small institutions where teaching is usually the most salient activity, a professor's accessibility to students is one of the many tacit forms of judging whether a new professor embodies desirable qualities. A male professor at a liberal arts college said, "As an undergraduate I would have never walked up to a professor's office and just knocked on the door and expected that professor to drop everything and sit and talk to me, but that is the almost uniform expectation here." "I started off being resistant," said another, "I set specific hours, I would not leave my door open — but when students wrote in their evaluations 'the professor is not available' — I began to change my attitude and have tried to adapt to the culture of the college."

Research. A young male professor at a major research university who admitted to "especially liking undergraduate teaching," said, "It was clear in my mind from things that were said in the interview that research came first, far and away, and as long as I held up my end of the research, if I wanted to be a good teacher too, that was ok." He added that the "research culture" came through in comments, such as, "you don't want to teach undergraduates," "students are a nuisance," and "constant talk about research, research goals, and research needs, and very little about teaching."

"What does it take to get tenure," asked one person. "That's the million dollar question. Standards change, and you never know how many articles you need." Another person commented, "Everybody talks about it. Someone gets published, and you feel sort of good for the person but frantic for yourself." "I have twenty articles in refereed journals," said another individual, "But people keep telling me I need a book. The dean wants a book."

In general, faculty at every type of institution enjoyed research, although they tended to steer clear of ground-breaking work because it took too long. They needed to write articles, and in the interest of accumulating publications, an individual could not devote years to a project that might not yield results. "I want to get tenure," said one, "and that makes me risk averse. I could go down one road that might lead to a big breakthrough in my field, but it also might lead nowhere. So I go for little results that get me publications." Another person said, "they want me to get published in journals that have low acceptance rates, so that says to me, play it safe."

Service. If research seemed the most important activity of faculty work, the least valued was service. Nevertheless, the expectations for service varied more than any other domain. With service some faculty were not expected to do anything; others were called on repeatedly. At a small institution, for example, one person explained, "I am on about six committees, and two of them are in my department. Two are for the school, and two more are all-college." Another person complained, "You just get put on them from the vice president's office. It's like you have to take your turn."

Everyone agreed that service did not count in any meaningful sense when a candidate was being considered for tenure. One needed to show that he/she was at least minimally involved in the affairs of the department, but not much more. However, service also provided a way for senior faculty to form opinions about junior faculty and in this sense, it held symbolic importance. "My department chair told me I should get on college-wide committees," said one individual, "because that's the way faculty in the other departments get to know you." "It's not a good idea," clarified one department chair, "for a younger person to stay hidden away." "Service is hard to evaluate when we go over someone's files," added another full professor, "but it's also the only time, probably, that somebody in another department has had to meet the person or know what he's done."

What are we to make of these snapshots of faculty socialization and work? I elaborate on three data points for discussion: (1) junior faculty spend long hours trying to meet multiple responsibilities; (2) the tasks set for them — teaching, research, and service — are often ill-defined and poorly evaluated; and (3) an individual's activity is often devoid of any overriding sense of institutional purpose or identity.

Discussion

Background

One point these interviews underscore is the value and import of looking at the implicit factors of socialization rather than the flash points that Van Mannen noted were overstudied. With few exceptions the participants did not speak of presidential speeches, convocations, or intensive introductory training sessions as ways in which they learned about the organization. Instead, they emphasized that the goals for tenure were unclear: they knew they needed to "produce" — to be a triathlete, one person said — and that the work took a phenomenal amount of time. They learned the pace of work, what was important and what was not, by being involved in the microscopic aspects of the culture of their organizations.

Most individuals pointed out that they had personal preferences — some liked research more than teaching and others teaching more than research — but no one spoke of a deep, embedded ethos for a particular value at their institution. To be sure, some of the interviewees expressed very clearly that their institution had a “culture of research” or that students were considered a “nuisance,” but such pronouncements fall far short of conveying a belief in an overriding organizational saga that might be found in a distinctive college (Clark, 1970). Grand markers that conveyed institutional meaning were absent, as were explicit, consistent messages on a more intimate level about what really mattered.

A Modernist Interpretation

In many respects the modern and postmodern definitions that have been provided offer a high degree of consistency with the data. One way to interpret the data is to say that the struggle for the individuals who were being socialized involved “acquiring” specific “skills,” “attitudes” and “knowledge.” The respondents did not know how to manage their time and thus spent a good deal of effort acquiring the skills necessary to juggle the multiple demands of teaching, committee work, and writing for publication. Many of the quotes highlight the thoughts of individuals who have bought into a system that demands evening and weekend work if they are to succeed.

Even though their tasks were ill-defined, these new faculty members seemed to accept that the role of faculty life required a high degree of internal definition about how they were doing. One respondent, for example, suggested that junior faculty spend time on a collegewide committee not because they were interested or committed to the goals, but because they had internalized the attitudes of what it takes to be a good faculty member. Others had learned that high teaching evaluations were not as important as publications or that being “good enough” at teaching was sufficient; consequently, they were not spending as much time as they would have liked working on lesson plans and other teaching techniques. Thus, individuals were able to subsume personal inclinations in favor of the modernist goal of assimilating to the culture to which they were being socialized.

Also consistent with the modernist perspective is the participants’ inability to express any clear sense of institutional belonging or ethos. If cultures are not unique and individuals interpret cultures similarly, then the data support a view of socialization as the process of acquisition by new, similarly minded recruits. If individuals are not able to socialize themselves so that they fit into the culture, then they fail. The modernist finds in the interview results supportive data for the notion that individuals think they have no control over their lives and that they are unsure

of what the goals of the organization are or of what they must do to succeed (as defined by achieving tenure). To the extent that individuals are able to fit themselves into such a culture, they succeed.

A Postmodern Perspective

A postmodern way of thinking about the data is to accept the veracity of what the respondents have said, but to think of ways the outcomes might be altered. Must we have organizations where people feel that the pace is helter-skelter? Is it necessary that individual preferences — teaching as opposed to research, for example — must be subjugated to cultural norms? Does service have to play a purely political/symbolic role, or are there alternative configurations? And finally, is there some institutional genetic predisposition in academic organizations against clear goals that bond people together?

An organization's culture is not internally coherent to all individuals. People are not all alike, and their joining together in an organization suggests that they are involved in the creation — not the discovery, not the duplication — of culture. Accordingly, one socialization format does not fit everyone; each individual brings to an organization a unique background and insights, and the challenge lies in using these individual attributes to build the culture of the organization rather than have recruits fit into predetermined norms (Tierney, 1993).

One radical interpretation might be that we have a postmodern culture operating within a modernist framework: conflict and discontinuities exist because people do not know what is expected of them. Of consequence, they fall back on their own interpretations of how to fit within the culture. Yet such an interpretation is unpersuasive if the outcome is assimilation; ultimately, the recruits learn how to teach, work with students, and participate in the community according to the implicit mores of the organization. My point here is to suggest that postmodernism highlights the inherent contradictions that exist within modernist frameworks so that we might be able to develop academic communities that honor difference rather than assimilation.

Goals may be both clear and multiple. It is surely possible to make more sense to an individual about what he/she needs to do to succeed. It is equally possible to create an organizational community that uses the idea of excellence and difference, rather than similarity, as its overriding ethos. Such a suggestion is particularly important in a world that is increasingly characterized as permeated by technological and communications breakthroughs which enable, indeed demand, that an organization's participants work toward innovation and change rather than the status quo.

Modernist assumptions highlight a structure in need of modest changes. The data afford views of individuals who conceivably would benefit from a system that might invent various forms of assimilatory processes. That is, various department chairs might benefit from training in how better to inculcate recruits into the culture of the organization. Clearer forms of evaluation might create a more straightforward socialization process. There are multiple discrete acts that would improve the manner in which recruits are socialized to the organization's culture from the modernist perspective. Such suggestions are similar to recommendations culture of poverty theorists might make when they encounter a culture that is deviant and in need of repair.

I argue, however, that at a time when commentary consistently speaks about the need for the overhaul of academe and the manner in which we academics conduct our work, we develop a different way of diagnosing organizational action, culture, and socialization. Postmodernism does not simply suggest that we accept the existence of discontinuities and learn to survive, but rather, that we deal with the uncertainties and conflicts that the data point out as inherent in postmodern organizations by devising a strategy to orchestrate action.

"Learning organizations" and "knowledge-creating companies" are predictions of one kind of institution necessary for the twenty-first century. Peter Senge, who popularized learning organizations in his book *The Fifth Discipline*, described them as places "where people continually expand their capacity to create the results they truly desire; where new and expansive patterns of thinking are nurtured" (1990, p. 1). David Garvin has suggested that a learning organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights (1993, p. 80).

Such organizations work from frameworks that accept difference and discontinuity, rather than similarity and continuity. Clearly, then, if we desire an organization that modifies rather than reinforces behavior, we need a schema of socialization that allows for creativity and difference to flourish rather than to become incorporated into a unitary mindset. Instead of tinkering with a system such as promotion and tenure, a system that socializes people to a unified view of organizational culture, we need to be mindful of alternative conceptions of culture and socialization.

If we study culture from the perspective argued for here, the subject shifts from *them* — the recruits — to *us* — those who establish organizational norms. Rather than try to socialize people to static norms, we reconsider what it means to the organization when new individuals are included. To be sure, individuals change when they enter in a new

workplace, but from the perspective argued for here, an equally dramatic change also needs to be considered by the current participants in the organization. Indeed, rather than seek individuals who fit the organization, a learning organization seeks to expand what we mean by organizational fit. Such an approach requires rethinking how we have structured organizational rewards and sanctions and acknowledging that when an individual is socialized, this individual is participating in the re-creation rather than merely the discovery of a culture.

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Research, Reputation, and Resources

The Effect of Research Activity on Perceptions of Undergraduate Education and Institutional Resource Acquisition

Introduction

Critics of higher education have suggested that the emphasis placed on performing academic research at major universities has created a consequent deterioration of undergraduate education. Even though the performance of academic research requires the allocation of faculty time and attention that might otherwise be directed toward undergraduate education, research activity also creates institutional benefits. For example, a graduate program whose faculty actively engage in research is likely to achieve a more favorable reputation than a lower producing program at another institution (Goldberger, Maher, & Flattau, 1995). A reputation for scholarly excellence can, in turn, result in an increased capacity to attract research funds and high ability graduate students to the program. Despite these and other potential benefits, many people feel that the disadvantages of an institutional commitment to research sometimes outweigh the advantages.

The reputations of graduate programs at an institution and the reputation of undergraduate education have generally been examined independently of each other. As a result there is little direct evidence to indicate whether activities that enhance the reputation of one functional area may actually harm perceptions of another. This is no small matter. Studies (Sax, Astin, Korn, & Mahoney, 1995) indicate that the academic reputation of an institution's undergraduate educational program is the most important decision factor for prospective university students selecting a college to attend. The purpose of this study is to examine the relationships

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among reputations of undergraduate education, graduate programs, and doctoral education at research universities. Particular attention is given to the effect that increased research activity may have on attitudes toward an institution's undergraduate educational programs. Furthermore, a preliminary investigation is made of relationships among reputational ratings, the underlying attitudes they reflect, and an institution's ability to obtain needed resources from its environment.

Past Research

Measuring Undergraduate Educational Reputation

Although a great deal of attention has been directed toward measuring the reputation of graduate programs at major universities (Carter, 1966; Hughes, 1925; Hughes, 1934; Jones, Gardner, & Coggeshall, 1982; Roose & Andersen, 1970), fewer studies have examined reputation at the undergraduate level. In a broad-based study, Astin (1970; also, Astin & Lee, 1972) found that the "prestige" of an undergraduate educational program was largely a function of the institution's "quality" and to a lesser extent its "visibility." He proposed that the mean SAT scores of entering freshmen at each institution was the single best measure of undergraduate educational quality, whereas institutional enrollment was the most important determinant of visibility. Thus, institutions with large enrollments and high average SAT scores for entering freshmen would have the greatest prestige.

In a related study (Astin, 1985; Astin & Solomon, 1981; Solomon & Astin, 1981) faculty members in six liberal arts fields (biology, chemistry, economics, English, history and sociology) were asked to rate other undergraduate departments in their fields according to six criteria: overall quality of undergraduate education, scholarly and professional accomplishment of faculty, faculty commitment to undergraduate teaching, innovativeness of curriculum and pedagogy, preparation of students for graduate or professional school, and preparation of students for employment after college. Overall quality ratings among the six fields were highly intercorrelated. The most important characteristic of institutions that received high overall undergraduate educational quality ratings was that they were highly selective, that is, their entering freshmen had high average SAT scores. Institutional enrollment was also found to be significantly related to ratings of overall undergraduate departmental quality, but in a complex way. For highly selective institutions, large enrollment size was found to be positively correlated with high quality ratings; for nonselective institutions, large enrollment size was found to be negatively correlated with high quality ratings. Accord-

ing to Astin (1985), "Apparently, large enrollment size is an asset for a selective institution, but a drawback for a nonselective institution" (p. 34).

Schmitz (1993) examined the relationship among *U.S. News & World Report* (USN&W) ratings of undergraduate educational reputation (referred to in the magazine's annual college guide as ratings of academic reputation), retention rates, graduation rates of entering freshmen, and other institutional characteristics. The USN&W ratings were based on the opinions of college presidents, deans, and admissions directors at similar institutions. For research and doctoral institutions, Schmitz found that the strongest correlate of ratings of undergraduate educational reputation was the average SAT scores, or equivalent ACT scores, of entering freshmen. She found that reputational ratings were also significantly correlated with the following variables: average high-school class standing of entering freshmen, acceptance rate of prospective students, instructional budget per student, retention rate of entering freshmen, average student cost of room and board, percentage of faculty possessing Ph.D.'s, and graduation rate of entering freshmen. Together these variables explained 64% of the total variance in reputational ratings for research and doctoral institutions.

Measuring the Reputation of Graduate Programs and Doctoral Education

Previous studies have typically attempted to compare graduate programs at different institutions through reputational ratings of the scholarly quality of graduate program faculties (Cartter, 1966; Hughes, 1925; Hughes, 1934; Jones, Gardner, & Coggeshall, 1982; Roose & Andersen, 1970). Some of these studies have also examined reputational ratings of doctoral education in each program (Cartter, 1966; Jones, Gardner, & Coggeshall, 1982; Roose & Andersen, 1970). Ratings of doctoral education have been shown to be very highly correlated with ratings of scholarly quality of faculty for each program. Studies have found that ratings of scholarly quality of program faculty are significantly correlated with variables representing several departmental and institutional characteristics.

The departmental variables found to be significantly correlated with ratings of scholarly quality of program faculty are the following: The number of faculty in the department (Abott, 1972; Elton & Rodgers, 1971; Elton & Rose, 1972; Hagstrom, 1971; Hartman, 1969; Morse, Donohue, Sanoff, & Shapiro, 1994); the number of doctorates granted by the department (Abott, 1972; Elton & Rodgers, 1971; Elton & Rose, 1972; Hartman, 1969); the annual research spending of the department

(Abott, 1972; Hartman, 1969); the number of articles published by the department's faculty (Abott & Barlow, 1972; Drew, 1975; Guba & Clark, 1978; Hagstrom, 1971; Knudsen & Vaughn, 1969); the number of doctoral students in the department (Elton & Rodgers, 1971; Elton & Rose, 1972); the percentage of departmental faculty holding research grants from select government agencies (Hagstrom, 1971); the percentage of postsecondary fellows in the department (Hagstrom, 1971; Hartman, 1969); the average number of published articles per faculty member in the department (Tan, 1992).

The institutional variables found to be significantly correlated with ratings of scholarly quality of program faculty are the following: The number of volumes in the institution's library (Conrad & Blackburn, 1986; Morgan, Kearney, & Regens, 1976); the total annual research spending of the institution (Abott, 1972); the total number of doctorates conferred annually by the institution (Abott, 1972); the total number of full-time faculty at the institution (Abott, 1972); the average SAT scores of entering freshmen of the institution (Hagstrom, 1971; Hartman, 1969); the student/faculty ratio of the institution (Brown, 1967); the percentage of faculty with doctorates at the institution (Brown, 1967).

Criticisms of Reputational Ratings

Reputational ratings have been criticized in the past on several grounds. It has been proposed that reputational ratings are influenced by various types of rater bias. Previous studies have found that raters rank institutions more highly if they are very familiar with an institution (Astin, 1985; Webster, 1992), or if they are graduates of the institution (Lawrence and Green, 1980). Studies have also suggested that ratings are subject to time lag. Raters may rank departments based on how good they were in the past or based on dated information (Lawrence and Green, 1980; Webster, 1992).

Past studies have proposed that reputational ratings are subject to "halo effects"; that is, ratings of a program are not based solely on the merits of the program, but instead they are unduly influenced by other factors. The following types of halo effects have been reported:

1. Institutional reputation affects graduate program ratings. Programs at well-regarded institutions are ranked more highly than they would be if ratings were based solely on the merits of the individual program (Webster, 1992).
2. The reputation of a graduate program is affected by the reputations of other graduate programs. There is an extraordinarily high

degree of similarity in the ratings of all graduate programs from the same institution (Astin, 1985). To some, this suggests that programs are not judged on their own merits but that ratings are based on perceptions of other programs at the institution.

3. Graduate program reputation affects undergraduate program ratings. Rankings of undergraduate programs are very similar to rankings of graduate programs, suggesting that graduate program reputation may artificially raise perceptions of undergraduate program excellence (Astin, 1985).

Theoretical Framework

The variables that serve as the main focus of this study are the *USN&W* reputational ratings of undergraduate education and the 1995 National Research Council (NRC) ratings of scholarly quality of program faculty. There continues to be a great deal of disagreement over the exact nature of the construct or constructs that these variables measure. Many educators reject the proposition that these measures serve as valid indicators of higher educational quality (Lawrence & Green, 1980).

The Talent Development Model of Quality

The dominant view of higher educational quality is consistent with Astin's *talent development model*, as put forward in his book *Achieving Educational Excellence* (1985). Astin's model proposes that the main purpose of a college or university is "to develop the talents of its faculty and students to their maximum potential" (p.16). For students, this development is achieved by facilitating changes in students' intellectual capacities and skills, values, attitudes, interests, habits, and mental health. Higher educational institutions also provide benefits to students in the form of enhancement of the undergraduate experience itself, independent of student learning effects. Institutions that provide the largest amount of developmental benefits to students and faculty are the ones that possess the highest quality. Under the talent development model, an institution's reputation has no relationship to its quality. Thus reputational ratings, such as the NRC and *USN&W* ratings, provide little valuable information.

The User-Based Model of Quality

An alternate conception of higher educational quality is the *user-based model* outlined by Seymour in his book *On Q: Causing Quality in Higher Education* (1992). Seymour proposes that the first priority of a college or university should be the assessment and fulfillment of the

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needs of students, parents, employers, and other "customers" of higher education. Institutions that possess the highest quality are those that do the most effective job of meeting the needs of their constituents. Conceptions of quality are inextricably linked with individual points of view. Thus, a guiding principle of the user-based (also TQM, or CQI) philosophy is that quality should be defined by an organization's customers rather than by the narrow views of experts (Bounds, Adams, & Ranney, 1994; Marchese, 1993; Seymour, 1992). A user-based approach would typically focus on specific aspects of higher educational organizations, and thus would use narrower measures than the broad measures represented by reputational ratings. Yet under this model, to the extent that reputational ratings reflect generalized customer opinions about which higher educational institutions are most likely to satisfy their needs, ratings might give insight into customer feelings about levels of quality associated with particular institutions or specific graduate programs.

Perceived Service Quality

The user-based model of quality incorporates elements which are common to the construct *perceived service quality* in the marketing literature and also closely related to the construct *attitude toward the object* (Boulding, Kalra, Staelin & Zeithaml, 1993). Perceived service quality is the extent to which consumers find a service to be excellent or better than comparable services. The marketing literature suggests that consumer perceptions of higher educational service quality are primarily formed through the consumer's experience during encounters with the institution, but they are also influenced, to some degree, by the consumer's prior expectations about what will and what should occur during such encounters.

There are distinct similarities in the instruments typically used to assess *perceived service quality* in marketing studies and the instruments used in reputational surveys of higher educational institutions. For example, in a marketing study by Boulding et al. (1993) perceptions of service quality were measured on a 100-point scale. Respondents were asked, "Describe your opinion on the overall quality of Hotel Alpha." The scale was anchored by the labels "very unfavorable" and "very favorable." This may be compared to the method used in the 1995 NRC assessment of scholarly quality of program faculty in which respondents (faculty members in similar departments at other doctorate-granting institutions) were first instructed: "Please consider only the scholarly competence and achievements of the faculty. It is suggested that no more than five programs be designated *distinguished*." Respondents

were then asked to rate various graduate programs by indicating whether the "scholarly quality of program faculty" could best be described as "distinguished," "strong," "good," "adequate," "marginal," or "not sufficient for doctoral education" (Goldberger, Maher, & Flattau, 1995). Respondents who were unfamiliar with a program could decline to evaluate it by marking a box labeled "don't know well enough to evaluate." Both the Boulding et al. and NRC measures are similar to the instrument used in the *USN&W* ratings of undergraduate academic reputation. College presidents, deans, and admissions directors who responded to the *USN&W* survey were asked to rate each college's overall "undergraduate educational quality" by considering the institution's curriculum, quality of faculty and general atmosphere for learning (Solorzano & Quick, 1983; Elfin, 1993).

Customer Satisfaction

In the marketing literature, *perceived service quality* is distinct from a related concept, *customer satisfaction*. Previous studies have shown that an individual's level of satisfaction is primarily a matter of the degree to which perceived service quality meets individual expectations, that is, people are satisfied when they receive the benefits that they thought they were going to receive from a college or university (Oliver, 1995; Zeithaml, Berry, & Parasuraman, 1996). People's expectations about the prevailing educational service quality at an institution act as a standard or baseline against which they measure actual institutional performance.¹ The higher the expectation in relation to actual performance, the greater the degree of disconfirmation of beliefs and the lower the satisfaction (Bearden & Teel, 1983; Boulding, et al., 1993; Churchill & Surprenant, 1982). Surprisingly, the level of perceived service quality itself may have a relatively minor direct impact on satisfaction (Boulding, et al., 1993; Churchill & Surprenant, 1982); the main determinant is disconfirmation of beliefs. Thus, a college that is perceived to possess low or moderate service quality might still rate high in student satisfaction if perceptions of its actual delivered service quality meet or exceed the level of service quality that students expected to find there.

Reputational Ratings and Individual Choice

The main interest of this study is not in the *USN&W* and NRC ratings themselves but in the underlying perceptions and attitudes toward individual colleges that these ratings may reveal. It is proposed that the *USN&W* reputational ratings of undergraduate education and the 1995 NRC ratings of scholarly quality of program faculty measure *reputa-*

tion, as the term is commonly used in higher education, for each group of survey respondents. It is proposed that these two reputational ratings also essentially measure *perceived service quality*, as defined in the marketing literature, for each group of survey respondents. It is proposed that perceived service quality is the primary antecedent of attitudes toward higher educational institutions. Thus perceived service quality, as measured by reputational ratings, should be closely related to behavioral intentions and individual actions. Furthermore, because there appears to be a high level of consensus regarding college ratings among survey respondents and individuals outside of higher education (see appendix), it is proposed that reputational ratings can be used, at least in general terms, to represent consumer attitudes toward individual colleges and universities. It is not proposed that reputational ratings measure quality employing the most common definition of the term, that is, the talent development model. (To avoid confusion, in the remainder of this article the term "quality" refers only to *quality* as defined by the talent development model. The terms "reputation" or "perceived service quality" refer to the separate marketing construct *perceived service quality*.)

Research Questions

1. How are reputational ratings of undergraduate education, doctoral education, and scholarly quality of graduate program faculty related to each other?
2. Is increased academic research activity associated with decreases in undergraduate educational reputation?

Method

Although the essential variables in this study are reputational ratings, other variables that have been shown to be strongly correlated with reputational ratings also were examined in order to provide convergence on the major concepts being investigated and to enable examination of factors underlying these concepts.

Sample

Each institution being examined grants undergraduate degrees, grants doctorates, and conducts research in several academic areas. The sample comprises 127 universities; 85 institutions are publicly governed and 42 are privately governed. Out of 85 public institutions, 47 of the institutions are categorized as R1, using the Carnegie classification system (Carnegie Foundation for the Advancement of Teaching, 1994),

25 are R2 institutions, 11 are D1 institutions, and 2 are D2 institutions. Out of 42 private institutions, 24 are categorized as R1 institutions, 9 are R2 institutions, 5 are D1 institutions, and 4 are D2 institutions. Research and doctoral institutions were selected for the sample if information was available for every variable representing the institution. Institutions with missing data for any of the variables were excluded. The sample includes almost all of the institutions listed as Carnegie research I universities (71 out of 88 institutions) and most of the research II universities (34 out of 37 institutions). The sample also includes universities that might best be described as "research III" universities. These are doctoral I and II institutions that, except for their smaller size, possess characteristics that are generally similar to research universities and generally different from other doctoral institutions. Boston College and SUNY-Binghamton are examples of this kind of institution.

Variables Representing Undergraduate Educational Reputation

The reputation of undergraduate education at each institution was measured by several variables employed in previous studies. Wherever possible, data for the fiscal year 1992–93 were used in order to improve comparability among variables, because this was the year of data collection for the 1995 NRC study. These variables and their data sources are the following: Average SAT score, or equivalent ACT score, of entering freshmen at each institution for 1992–93, *America's Best Colleges: 1994* (Elfin, 1993); acceptance rate of freshman applicants of the institution for fall 1992, *America's Best Colleges: 1994* (Elfin, 1993); student/faculty ratio of the institution (full-time equivalent students divided by full-time equivalent faculty) for 1992–93, *America's Best Colleges: 1994* (Elfin, 1993); percentage of the institution's full-time faculty with doctorates or equivalent terminal degrees, *America's Best Colleges: 1994* (Elfin, 1993); instructional and student services expenditures per FTE student at the institution, *IPEDS Finance Survey, FY 1992–93* (U.S. Department of Education, 1993b) and *IPEDS Fall Enrollment Survey, Fall 1992* (U.S. Department of Education, 1992b); freshman graduation rate of the institution (percentage of students in the 1983–86 freshman classes who graduated within six years of the year in which they enrolled), *America's Best Colleges: 1994* (Elfin, 1993); number of bachelor's degrees granted by the institution in fiscal year 1992–93, *IPEDS Completions Survey, FY 1992–93* (U.S. Department of Education, 1993a); *USN&W* reputational ratings of undergraduate education (undergraduate academic reputation), *America's Best*

Colleges: 1994 (Elfin, 1993). The *USN&W* ratings were converted to an ordinal scale that assigned a value of 5.0 to all institutions tied for the highest rank, a value of 4.9 to institutions tied for the next highest rank, and so on. College presidents, deans, and admissions directors supplying the ratings were asked to rate each college's overall "undergraduate educational quality" by considering the institution's curriculum, quality of faculty, and general atmosphere for learning. Raters were asked to disregard the institution's graduate programs when determining their ratings for each college (Elfin, 1993; Solorzano & Quick, 1983). (The reputational ratings are combined with other student, faculty and financial data to create the overall *USN&W* rankings prominently reported each year in the magazine.)

Variables Representing the Reputation of Graduate Programs

The reputation of graduate programs of each institution were measured by several variables found to be correlated with ratings of scholarly quality of program faculty in previous studies or variables that have been used by themselves as measures of graduate program excellence. These variables represent both institutional attributes (total figures for the institution as a whole) and departmental averages representing characteristics of a "typical" department at each institution.

The institutional attribute variables used and their data sources are the following: Total number of master's degrees granted by the institution in 1992–93, *IPEDS Completions Survey, FY 1992–1993* (U.S. Department of Education, 1993a); total number of doctor's degrees granted by the institution 1992–93, *IPEDS Completions Survey, FY 1992–1993* (U.S. Department of Education, 1993a); total number of FTE instructional faculty at the institution fall 1991, *IPEDS Fall Staff Survey, Fall 1991* (U.S. Department of Education, 1991); total number of bound volumes in the institution's library for 1992, *IPEDS Academic Library Survey 1992* (U.S. Department of Education, 1992a); total funds for research and development obtained by each institution from Federal agencies (using NSF reporting guidelines) for the period 1986–92 in constant dollars, *Research-Doctorate Programs in the United States: Continuity and Change* (Goldberger, Maher, & Flattau, 1995); total funds for research and development from all sources (using NSF reporting guidelines) for the period 1986–92 in constant dollars *Research-Doctorate Programs in the United States: Continuity and Change* (Goldberger, Maher, & Flattau, 1995); total current fund expenditures for research (using IPEDS reporting guidelines) for FY 1992–93, *IPEDS Finance Survey, FY 1992–1993* (U.S. Department of

Education, 1993b); the average salary of full professors at the institution for 1992–93, *IPEDS Salaries, Tenure and Fringe Benefits Survey, FY 1992–1993* (U.S. Department of Education, 1993c).

Additionally, using data from the 1995 NRC study (Goldberger, Maher, & Flattau, 1995), departmental average measures were created that represent the following: The average number of faculty in each department of an institution; the average number of full-time and part-time graduate students enrolled in each department in fall 1992; the average number of doctoral degrees granted by each department for the period academic year 1987–88 to 1991–92; the average number of program publications for each department from 1988 to 1992; the average number of articles published per faculty member of each department; the average reputational rating of scholarly quality of the graduate faculty of each department at an institution. The 1995 NRC reputational ratings were made by faculty members in similar departments at other doctorate granting institutions. The average of the NRC ratings was used as a measure of the reputation for scholarly excellence of the graduate faculty at each institution.

Each of the departmental average measures was based on information from programs in biochemistry and molecular biology, chemistry, economics, electrical engineering, English language and literature, history, physics, and psychology at each institution provided by the 1995 NRC survey (Goldberger, Maher, & Flattau, 1995). This group of departments was intended to represent a broad spectrum of academic disciplines. The fields with the largest number of reported programs in each of the 1995 NRC study's five general academic areas were used. Choosing popular departments allowed as many institutions as possible to be compared using the same fields at each institution. Information from an average of 6.47 departments was used for each institution to calculate figures for the average number of faculty in each department, the average number of doctoral graduates from each department, the average number of graduate students in each department, and the average rating of scholarly quality of program faculty of each department. Because information was not available regarding publications of English language and literature departments, an average of 5.67 departments were used for each institution to calculate the figures for the average number of publications produced by each department and the average number of publications produced by each faculty member in each department. No institution in the study possessed fewer than four of the eight departments. The data for each measure were first standardized by department, then summed across departments, and divided by the number of departments (out of eight possible) for which data were avail-

able. Because the data were standardized prior to averaging, academic disciplines with generally large numbers of faculty and students at each institution were put on an equal footing with academic disciplines that were typically smaller in size.

Basing departmental average figures on a larger number of common fields than were employed in this study would increase the reliability of the figures used. However, as the number of academic fields used in calculations increases, the number of institutions with limited doctoral offerings that would have to be eliminated from the sample also increases. The appropriate number of departments to use in creating average figures was determined by calculating the minimum number of fields needed to create a sufficiently high degree of internal consistency for the measures used.

Variables Representing Doctoral Educational Reputation

The 1995 NRC ratings of scholarly quality of graduate faculty for each program (Goldberger, Maher, & Flattau, 1995) were also used to represent the reputation of doctoral education at each institution. An examination of the correlations between 1995 NRC ratings of scholarly quality of program faculty and separate 1995 NRC ratings of "the doctoral program's effectiveness in educating research scholars/scientists" shows that the two ratings are nearly identical. For the eight academic fields examined from the 1995 study, the average coefficient of correlation was 0.97 for these two sets of ratings.

Appropriateness of Aggregating Program Data

The practice of aggregating NRC data from individual departments to form average measures for each institution has occasionally been questioned, because it has been suggested that it is difficult to compare institutions unless they each have exactly the same number and type of departments (Lawrence & Green, 1980). Yet, other studies have indicated that NRC ratings for different programs at the same institution display a remarkably high degree of similarity (Volkwein, 1986), and in fact, this tendency (i.e., "halo effect") has been proposed as a general weakness of reputational ratings. Thus the fundamental question is, do the programs at a typical institution display more similarities or differences among themselves? The answer determines the appropriateness of combining data from different departments and the number of items (departments) from each institution required to create reliable measures. This issue can be addressed statistically.

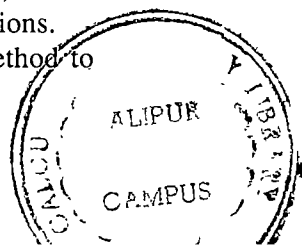
Estimates of internal consistency were calculated for each departmental average measure used in the study. The most important of these

measures was the average NRC rating of the scholarly quality of graduate program faculty. This measure proved to have very high internal consistency (mean inter-item correlation, $r = 0.769$; coefficient alpha = 0.956). Correlations between different pairs of program ratings were consistently high (the lowest inter-item correlation was $r = 0.623$). This suggests that it is reasonable to create average ratings of scholarly quality of program faculty for an institution by combining ratings of individual departments. The reliability estimate is similar to results obtained by Volkwein (1986) employing a similar method for 1982 NRC ratings. Acceptably high internal consistency (Carmines & Zeller, 1979) was also found for measures representing the average number of faculty in each department (mean inter-item correlation, $r = 0.546$, coefficient alpha = 0.886); the average number of graduate students enrolled in each department (mean inter-item correlation, $r = 0.418$, coefficient alpha = 0.823); the average number of doctor's degrees granted by each department (mean inter-item correlation, $r = 0.445$, coefficient alpha = 0.838); the average number of articles published by each department (mean inter-item correlation, $r = 0.505$, coefficient alpha = 0.852); and the average number of articles published by each faculty member in each department (mean inter-item correlation, $r = 0.399$, coefficient alpha = 0.790). In summary, there is a generally high degree of internal consistency among variables representing departmental characteristics. It appears that as a rule, institutions with well-respected, larger-than-average chemistry departments also tend to have well-respected, larger-than-average economics, history, and physics departments, and so on. Thus, the departmental averages used in this study appear to represent adequately the characteristics of an average or typical department at each institution.

Data Analysis

Past studies have shown that ratings of scholarly quality of program faculty (Fairweather & Brown, 1991; Tan, 1992) and ratings of undergraduate educational reputation (Astin, 1985) are related to a group of underlying factors. Because a large number of variables were examined in this study, preliminary factor analysis was used to create a smaller number of common factors.² In addition to simplifying the task of data analysis, this method affords an examination of the relationships among reputational ratings and their underlying factors. In order to examine possible differences between public and private universities, factor analyses were performed individually for each group of institutions.

The factor analyses employed the principal components method to



extract the initial factors and an orthogonal (VARIMAX) terminal rotation. Two common factors were obtained for each group of institutions. The resulting two-factor structure for private institutions (Table 1) has a Kaiser-Meyer-Olkin MSA value of 0.78 which indicates that a satisfactory simple structure is obtainable. The first two common factors have eigenvalues of 11.2 and 3.3; hence, the first two factors together explain approximately 72 percent of the total variance of the sample. The two-factor structure for public institutions (Table 2) has a very high MSA value (0.89), indicating that a highly satisfactory simple structure is obtainable. The first two initial factors have eigenvalues of 12.0 and 1.9; thus, these factors together explain approximately 69 percent of the total variance of the sample. Low freshman acceptance rates and low student/faculty ratios are viewed favorably; thus, factor loadings and correlations involving these variables will have reversed signs from the other variables in the study.

TABLE 1
Factors Related to Reputational Ratings for Private Institutions ($n = 42$)

	<u>Size</u> Factor 1	<u>Selectivity</u> Factor 2	
Average SAT scores of entering freshmen	0.370	0.842	
Acceptance rate of freshmen applicants	−0.385	−0.738	
Student/faculty ratio	−0.063	−0.720	
Percentage of full-time faculty with doctorates	0.163	0.643	
Instruction & student services expenditures per FTE student	0.413	0.628	
Graduation rate of entering freshmen	0.194	0.759	
Number of bachelor's degrees granted	0.494	−0.692	
Number of master's degrees granted	0.762	−0.386	
Number of doctor's degrees granted	0.950	0.167	
Number of FTE instructional faculty	0.820	−0.098	
Number of bound volumes in library	0.679	0.289	
Research and development funds from Federal agencies (NSF)	0.846	0.353	
Research and development funds from all sources (NSF)	0.863	0.351	
Current fund expenditures for research (IPEDS)	0.837	0.341	
Average salary for full professors	0.565	0.652	
Average number of faculty in each department	0.802	0.298	
Average number of graduate students in each department	0.773	0.292	
Average number of doctor's degrees granted by each department	0.829	0.374	
Average number of publications from each department	0.845	0.428	
Avg. num. publications per faculty member of each department	0.722	0.519	
Percentage of Variance in Ratings Explained by Each Factor (Coefficients of Determination, R^2)			
Variable	<u>Size</u> Factor 1	<u>Selectivity</u> Factor 2	<u>Total</u> R^2
Avg. NRC Rating Scholarly Quality of Program Faculty	54.7****	35.2****	89.9
USN&W Reputational Rating of Undergraduate Education	34.6****	51.5****	86.1

Significance of coefficients of determination: **** = $p < 0.0001$.

TABLE 2

Factors related to reputational ratings for public institutions ($n = 85$)

	Size Factor 1	Selectivity Factor 2	
Average SAT scores of entering freshmen	0.289	0.768	
Acceptance rate of freshmen applicants	-0.175	-0.642	
Student/faculty ratio	0.067	-0.181	
Percentage of full-time faculty with doctorates	0.244	0.588	
Instruction & student services expenditures per FTE student	0.350	0.665	
Graduation rate of entering freshmen	0.242	0.724	
Number of bachelor's degrees granted	0.859	-0.032	
Number of master's degrees granted	0.813	-0.017	
Number of doctor's degrees granted	0.934	0.246	
Number of FTE instructional faculty	0.867	0.159	
Number of bound volumes in library	0.839	0.280	
Research and development funds from Federal agencies (NSF)	0.774	0.443	
Research and development funds from all sources (NSF)	0.824	0.392	
Current fund expenditures for research (IPEDS)	0.813	0.388	
Average salary for full professors	0.450	0.711	
Average number of faculty in each department	0.871	0.322	
Average number of graduate students in each department	0.855	0.324	
Average number of doctor's degrees granted by each department	0.850	0.360	
Average number of publications from each department	0.858	0.406	
Avg. num. publications per faculty member of each department	0.670	0.450	
Percentage of Variance in Ratings Explained by Each Factor (Coefficients of Determination, R^2)			
Variable	Size Factor 1	Selectivity Factor 2	Total R^2
Avg. NRC Rating Scholarly Quality of Program Faculty	57.9****	26.6****	84.5
USN&W Reputational Rating of Undergraduate Education	52.3****	32.7****	85.0

Significance of coefficients of determination: **** = $p < 0.0001$.

Description of the Factors Created

For both public and private institutions the first common factor, "size," has high loadings for institutional and departmental average variables generally associated with the enrollment size and research activity of the institution. This factor has high loadings for variables representing the number of bachelor's, master's, and doctor's graduates of the institution; the number of FTE instructional faculty at the institution; the size of library holdings; the amount of money spent on research at the institution (using three means of measurement); the average number of faculty in each department of an institution; the average number of graduate students in each department; the average number of doctoral graduates from each department; the average number of articles published by each department of the institution; and the average number of articles published by each faculty member in each department of the institution. The size of the factor loadings for variables loading most

strongly on Factor 1 for public institutions are generally similar to those for private institutions.

For public and private institutions, the second common factor, "selectivity," has high loadings for variables associated with undergraduate student selectivity, faculty selectivity and concentration of resources. Factor 2 has high loadings for variables representing average SAT scores of entering freshmen, acceptance rate of freshman applicants, student/faculty ratios (private institutions only), percentage of faculty with doctorates, instructional and student services expenditures per FTE student, freshman graduation rate, average salaries of full professors, and the average number of articles published by each faculty member in each department (private institutions only). The negative factor loadings for variables representing the number of bachelor's and master's graduates on Factor 2 indicates that enrollments of bachelor's and master's students tend to be lower at more selective institutions. This is particularly pronounced for undergraduate enrollments at private institutions. Although low student/faculty ratios are associated with high selectivity for private institutions, this variable has only a small loading on Factor 2 for public institutions. This may occur because in many states student/faculty ratios are greatly influenced by state higher education policies and thus are somewhat artificially controlled.

The use of an oblique (PROMAX) terminal rotation shows that when the factors are not constrained to be orthogonal, Factor 1 is modestly correlated with Factor 2 for private institutions ($r = 0.382$, $p < 0.05$), and Factor 1 is strongly correlated with Factor 2 ($r = 0.576$, $p < 0.0001$) for public institutions. Otherwise, the use of an oblique rotation did not materially affect any of the factor loadings and was not employed further.

For both public and private institutions, standardized factor scores were created employing all twenty variables and using an orthogonal rotation (thus producing uncorrelated factor scores). The *USN&W* and NRC reputational ratings (dependent variables) were regressed on each factor (independent variables). Because the factors are uncorrelated, each coefficient of determination represents the percentage of variance in one of the rating variables uniquely attributable to the presence of that particular factor. The coefficients of determination can be summed to indicate the percentage of total variance (R^2) in a rating variable attributable to both factors considered together.

Ratings of Scholarly Quality of Program Faculty

The results of the analysis show that both common factors taken together explain 89.9% of the total variance in average NRC ratings of the scholarly quality of graduate program faculty for private institutions (Table 1) and 84.5% of the total variance in NRC ratings for public in-

stitutions (Table 2). For private institutions, Factor 1 (size) considered by itself uniquely explains 54.7% of the total variance in average NRC ratings of scholarly quality of program faculty and Factor 2 (selectivity) explains an additional 35.2% of the total variance. For public institutions, Factor 1 (size) considered in isolation uniquely explains 57.9% of the total variance in average NRC ratings of scholarly quality of program faculty and Factor 2 (selectivity) explains an additional 26.6% of the total variance.

The results of this analysis agree with the findings of past studies which have found that size related variables are strongly correlated with ratings of scholarly quality of graduate program faculty. The most reasonable explanation for this effect is that raters conclude that departments that conduct large amounts of research and publish many articles possess better faculty members (or that better faculty members conduct large amounts of research). The substantial correlation of Factor 2 (selectivity) with ratings of scholarly quality of program faculty may be explained by the higher number of full-time faculty with doctorates, the larger number of articles published by each faculty member of a typical department, and the larger average salaries of faculty at institutions with high scores for Factor 2. This suggests that in addition to the total volume of research conducted by an institution, the average output of each faculty member also contributes to perceptions of excellence. The strong relationship of ratings of scholarly quality of program faculty with measures of research activity and the probable lack of rater familiarity with other aspects of faculty activity (such as teaching) suggests that the NRC ratings may largely be based on perceptions of the collective research effort of each department being rated and on the perceived excellence of each member of a department.

Part of the difference in the relative importance of Factor 1 and Factor 2 with regard to NRC ratings for public and private institutions is probably due to differences in the strength of the factor loadings for research related variables on Factor 1 and Factor 2 for each group of institutions. Because the values of factor loadings for specific variables are influenced by the other variables with which they are analyzed, the percentage of explained variance accounted for by each factor should be considered an approximation.

Regression Analysis of NRC Ratings

A best fit regression function was created employing the NRC reputational ratings of scholarly quality of program faculty as the dependent variable and then evaluating all possible combinations of the 20 institutional and departmental variables in this study as potential independent variables. This procedure yielded a model with 11 independent vari-

ables that explained 91.2% (adjusted R^2) of the variance in NRC ratings for public institutions and a model with 12 independent variables that explained 96.8% (adjusted R^2) of the variance in NRC ratings for private institutions. Thus, a very large portion of the total variance in NRC ratings is explained by the variables examined in this study, and most of the total explained variance is captured by the two factors (size and selectivity) created by the factor analysis.

USN&W Reputational Ratings of Undergraduate Education

For private universities *USN&W* ratings of undergraduate educational reputation are strongly correlated ($r = 0.912$, $p < 0.0001$) with the average 1995 NRC ratings of the scholarly quality of graduate program faculty for each institution. These two ratings variables are also strongly correlated ($r = 0.918$, $p < 0.0001$) for public universities.

When considered together, Factor 1 (size) and Factor 2 (selectivity) explain 86.1% of the total variance in *USN&W* reputational ratings of undergraduate education for private institutions (Table 1) and 85.0% of the total variance in *USN&W* ratings for public institutions (Table 2). For private institutions, Factor 1 (size) by itself explains 34.6% of the total variance in *USN&W* ratings, and Factor 2 (selectivity) uniquely explains another 51.5% of the total variance in these ratings. For public institutions, Factor 1 (size) uniquely explains 52.3% of the total variance in *USN&W* ratings, and Factor 2 (selectivity) uniquely explains another 32.7% of the total variance.

Both Factor 1 and Factor 2 contribute significantly to ratings of undergraduate educational reputation and scholarly quality of program faculty. For both groups of institutions, selectivity is more important in explaining differences in *USN&W* ratings of undergraduate educational reputation than it is in explaining differences in NRC ratings of scholarly quality of program faculty, while size plays a larger role in explaining differences in NRC ratings than it does in explaining differences in *USN&W* ratings.

For both public and private institutions, the strong correlation between undergraduate educational reputation ratings and Factor 2 (selectivity) is in agreement with previous studies that have found that SAT scores and other measures of selectivity are strongly correlated with reputational ratings of undergraduate educational reputation (Astin, 1985; Schmitz, 1993; Spaeth & Greeley, 1970). The substantial correlation between Factor 1 (size) and ratings of undergraduate educational reputation for both groups of institutions is more surprising. The results suggest that undergraduate educational reputation may be enhanced by increases in student enrollment, research activity, or a combination of these influences.

Regression Analysis of USN&W Ratings

A best fit regression function was created employing the *USN&W* reputational ratings of undergraduate education as the dependent variable and then evaluating all possible combinations of the 20 institutional and departmental variables in this study as potential independent variables. This method produced a model with 12 independent variables that explained 89.0% (adjusted R^2) of the variance in *USN&W* ratings for public institutions and a model with 9 independent variables that explained 92.5% (adjusted R^2) of the variance in *USN&W* ratings for private institutions. As the case was with NRC ratings, a very large proportion of the total variance in *USN&W* ratings is explained by the variables examined in this study.

Enrollment Size, Research Activity, and Undergraduate Educational Reputation

In order to study the relationships among ratings of undergraduate educational reputation, research activity and enrollment size, further analysis was performed (Tables 3 and 4). The analysis examined corre-

TABLE 3

Correlations among measures of enrollment, research activity, and selected variables for private institutions ($n = 42$) (Correlation Coefficients)

	Bach. Degr.	Mast. Degr.	Doc. Degr.	R&D Funds-NSF
Number of master's degrees granted	0.655****	1.000		
Number of doctor's degrees granted	0.333*	0.683****	1.000	
R and D funds from all sources (NSF)	0.099	0.461**	0.882****	1.000
Avg. NRC rating scholarly quality prog. faculty	0.020	0.309*	0.792****	0.818****
<i>USN&W</i> reputational rating undergrad. education	-0.099	0.171	0.668****	0.735****
Average SAT scores of entering freshmen	-0.317*	-0.028	0.484**	0.587****
Acceptance rate of freshman applicants	0.117	-0.014	-0.476**	-0.511****
Student/faculty ratio	0.481**	0.077	-0.197	-0.268
Percentage of full-time faculty with doctorates	-0.382*	-0.030	0.306*	0.360*
Instr. & stud. svcs. expend. per FTE student	-0.262	0.173	0.416**	0.623****
Freshman graduation rate	-0.306*	-0.132	0.336*	0.379*
Number of FTE instructional faculty	0.461**	0.734****	0.717****	0.620****
Number of bound volumes in library	0.113	0.379*	0.675****	0.593****
R and D funds from Federal agencies (NSF)	0.082	0.445**	0.866****	0.992****
Current fund expend. for research (IPEDS)	0.083	0.432**	0.861****	0.967****
Avg. salary for full professors	-0.103	0.252	0.629****	0.651****
Avg. num. of faculty in each department	0.289	0.453**	0.799****	0.743****
Avg. num. of graduate students in each dept.	0.118	0.434**	0.784****	0.757****
Avg. num. doc. degrees granted by each dept.	0.077	0.462**	0.868****	0.844****
Avg. num. of publications from each dept.	0.132	0.386	0.870****	0.866****
Avg. num. public. per fac. member each dept.	-0.019	0.269	0.763****	0.799****

Significance of Correlation Coefficients: * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. **** = $p < 0.0001$.

TABLE 4

Correlations among measures of enrollment, research activity, and selected variables for public institutions ($n = 85$) (Correlation Coefficients)

	Bach. Degr.	Mast. Degr.	Doc. Degr.	R&D Funds-NSF
Number of master's degrees granted	0.639****	1.000		
Number of doctor's degrees granted	0.795****	0.765****	1.000	
R and D funds from all sources (NSF)	0.672****	0.575****	0.843****	1.000
Avg. NRC rating scholarly quality prog. faculty	0.618****	0.564****	0.833****	0.792****
<i>USN&W</i> reputational rating undergrad. education	0.622****	0.563****	0.824****	0.812****
Average SAT scores of entering freshmen	0.296**	0.276*	0.479****	0.541****
Acceptance rate of freshman applicants	-0.188	-0.270*	-0.332**	-0.365***
Student/faculty ratio	0.204	-0.117	-0.035	0.032
Percentage of full-time faculty with doctorates	0.218*	0.181	0.387***	0.418****
Instr. & stud. svcs. expend. per FTE student	0.186	0.262*	0.443****	0.522****
Freshman graduation rate	0.295**	0.190	0.415****	0.445****
Number of FTE instructional faculty	0.765****	0.706****	0.842****	0.787****
Number of bound volumes in library	0.654****	0.755****	0.864****	0.730****
R and D funds from Federal agencies (NSF)	0.573****	0.553****	0.773****	0.937****
Current fund expend. for research (IPEDS)	0.635****	0.578****	0.822****	0.967****
Avg. salary for full professors	0.378***	0.356***	0.613****	0.640****
Avg. num. of faculty in each department	0.746****	0.698****	0.898****	0.807****
Avg. num. of graduate students in each dept.	0.663****	0.707****	0.893****	0.778****
Avg. num. doc. degrees granted by each dept.	0.687****	0.677****	0.912****	0.767****
Avg. num. of publications from each dept.	0.707****	0.615****	0.886****	0.851****
Avg. num. public. per fac. member each dept.	0.578****	0.421****	0.712****	0.712****

Significance of Correlation Coefficients: * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. **** = $p < 0.0001$.

lations³ of the number of bachelor's degrees granted (used as a relative measure of undergraduate enrollment), the number of master's degrees granted (used as a relative measure of master's enrollment), the number of doctor's degrees granted (used as a relative measure of doctoral enrollment), and total funding for research and development for each institution from all sources (NSF reporting guidelines) with the other variables employed in this study.

The results show that for both public and private institutions, total institutional funding for research and development is strongly correlated with traditional objective measures of undergraduate education (SAT scores of entering freshmen, student/faculty ratio, freshman applicant acceptance rate, graduation rate, number of full-time faculty with doctorates, instructional and student services expenditures per FTE student), and with subjective measures of undergraduate educational reputation (*USN&W* reputational ratings). Other measures of research activity not shown in Tables 3 and 4, such as average number of publications per department, are correlated in a very similar manner with each of these measures of undergraduate education.

Enrollments for all degree levels tend to be more highly intercorrelated for public institutions than for private institutions. At public universities, the number of baccalaureate graduates of an institution is strongly correlated ($r = 0.795$, $p < 0.0001$) with the number of doctoral graduates of an the institution. However for private universities the number of doctoral graduates is only modestly correlated ($r = 0.333$, $p < 0.05$) with the number of bachelor's graduates. Thus, correlations between undergraduate enrollment and a given variable and between doctoral enrollment and the same variable tend to be more similar for public institutions than for private institutions.

The ratio of doctoral graduates to baccalaureate graduates is also quite different for public and private universities. For the institutions in this study, there were an average of 15.8 baccalaureate graduates for each doctoral graduate at public universities and an average of 6.3 baccalaureate graduates for each doctoral graduate at private universities. Thus, despite considerable variance in ratios of doctoral students to undergraduate students at private universities, private universities appear typically to have much smaller ratios than public institutions.

Analysis of Correlations

An examination of the correlations in Tables 3 and 4 yields the following important questions:

- 1a. For private institutions, why are large doctoral enrollments associated with improved measures of undergraduate selectivity (higher average SAT scores for entering freshmen, lower freshman acceptance rates, etc.), while large bachelor's enrollments are associated with worsened values of the same selectivity variables?
- 1b. For public institutions, why are doctoral enrollments more strongly correlated with measures of undergraduate selectivity than are bachelor's enrollments?
2. For both public and private institutions, why are doctoral enrollments more strongly correlated with perceived undergraduate educational reputation (*USN&W* ratings) than are bachelor's enrollments?

Private university enrollments and measures of selectivity. The results in Table 3 indicate that smaller undergraduate enrollments at private universities are associated with higher values of objective measure of undergraduate education (SAT scores of entering freshmen, student/faculty ratio, freshman applicant acceptance rate, graduation rate, number of full-time faculty with doctorates, instructional and student

services expenditures per FTE student). It can be reasonably suggested that as the measures of undergraduate selectivity loading on Factor 2 (particularly admissions standards) increase, bachelor's enrollments should normally decrease. Because the number of high ability students is more limited than the number of average ability students, as admission standards become more stringent, the pool of qualified applicants and enrolled students should typically become smaller.

For private institutions, large doctoral enrollments are associated with higher values of objective measures of undergraduate education. It is hard to suggest plausible reasons why large doctoral enrollments would be associated with increased selectivity, except that large doctoral enrollments, or an unnamed element associated with increased doctoral enrollments, have a favorable influence on undergraduate educational reputation. It seems likely that this unnamed element is institutional research activity.

For both private and public institutions, doctoral enrollments are very strongly correlated with departmental and institutional research activity. Because doctoral students are often employed as teaching or research assistants, the number of doctoral students at an institution may be an important indication of the human resources that can be used to facilitate faculty research, either through direct research assistance or by relieving faculty teaching obligations. The results of this study indicate that institutions conducting large amounts of research possess faculty who are perceived to possess higher levels of scholarly excellence than lower-producing institutions. The perceived high level of scholarly excellence of a university's faculty may be seen as presenting certain benefits to undergraduate education. Thus, high research activity leads to increases in perceived scholarly excellence of faculty and may, in turn, lead to increases in undergraduate educational reputation.

Admission standards help balance excessive demand for educational services with limited supply. Thus if increased research activity is associated with greater undergraduate educational reputation and greater demand, then variables associated with research activity (such as doctoral enrollments) should also be correlated with higher undergraduate admission standards and other measures of selectivity.

Public university enrollments and measures of selectivity. For public institutions (Table 4), the relationship between doctoral enrollments and measures of selectivity are similar to those for private institutions, with large doctoral enrollments (and other measures of research activity) being associated with improved selectivity. Because bachelor's enrollments and levels of research activity are highly correlated for public institutions, any decreases in selectivity associated with large bache-

lor's enrollments would tend to be compensated for by the increases in selectivity associated with increased research activity. The net effect is that public university bachelor's enrollments are moderately correlated with selectivity measures, but the correlation is not as strong as between public university doctoral enrollments and selectivity.⁴

Enrollment and ratings of undergraduate educational reputation. For both public and private institutions, doctoral enrollments are strongly correlated with undergraduate educational reputation and other measures of undergraduate excellence. Research activity may have some influence on undergraduate educational reputation through Factor 2 (selectivity). However, research activity also appears to have an influence on undergraduate educational reputation through Factor 1 (size). If institutions with increased research activity are believed to present certain benefits for undergraduate education, such as higher ability faculty, then the greater an institution's research output (as represented by a high score on Factor 1), the more favorable should be its perceived undergraduate educational reputation. Because doctoral enrollments are strongly correlated with research activity, doctoral enrollments are also strongly correlated with undergraduate educational reputation.

For private institutions, large bachelor's enrollments are associated with worsened selectivity and thus lower undergraduate educational reputation. Yet, large private university bachelor's enrollments are to some degree associated with large doctoral enrollments (as a proxy for research activity) and thus higher undergraduate educational reputation. These two contrasting effects appear to balance each other, and the net result is that bachelor's enrollments at private universities are relatively uncorrelated with undergraduate educational reputation.

It seems reasonable that higher levels of undergraduate selectivity should be associated with smaller bachelor's enrollments and higher undergraduate educational reputation at public institutions, just as they are at private institutions. Yet, because bachelor's enrollments are strongly correlated with levels of research activity at public institutions, the net result is that larger public university bachelor's enrollments are strongly associated with greater undergraduate educational reputation (although the correlation is not as strong as between public university doctoral enrollments and undergraduate educational reputation).

An alternative explanation for the observation that public and private doctoral enrollments are more strongly correlated with undergraduate educational reputation than are bachelor's enrollments is that graduate education is more prestigious than baccalaureate education. Thus, the presence of an extensive graduate program with large numbers of graduate students might confer prestige on an institution's undergraduate

educational program and increase its reputation. However, further examination suggests that this is unlikely. There seems to be little reason for the large difference in the strength and direction of correlations for master's enrollments with measures of undergraduate educational reputation and for doctoral enrollments with measures of undergraduate educational reputation. The most reasonable explanation is that master's and doctoral enrollments differ in their relationships with undergraduate educational reputation, not because of large inherent differences in the levels of prestige associated with them, but because doctoral enrollments are strongly correlated with levels of institutional research activity, while master's enrollments are not.

Summary. Measures of research activity are strongly correlated with undergraduate educational reputation and with measures of selectivity for both public and private universities. It seems unlikely that large undergraduate enrollments or large graduate enrollments have any inherent positive association with undergraduate educational reputation. Any positive association that exists between enrollment levels and measures of undergraduate educational reputation appears to be due primarily to the favorable influence of increased research activity (and increased perceptions of faculty excellence) at institutions with large doctoral enrollments.⁵ For less selective (nonresearch-oriented) institutions large enrollment size may be merely associated with lessened values for objective measures of undergraduate education (lower SAT scores for entering freshmen, higher freshman acceptance rates, etc.) with no simultaneous positive consequences associated with increased research activity. This may explain Astin's previous finding that for less selective institutions large enrollment size is associated with lower undergraduate educational reputation (Astin, 1985).

Discussion

Reliability of Reputational Ratings

Halo effects. Past studies have reported the tendency for all graduate programs within an institution to receive very similar reputational ratings (Astin, 1985; Goldberger, Maher, & Flattau, 1995). Yet, the results of this study indicate that, for the programs within an institution, there is also a high degree of similarity among the characteristics that presumably underlie the ratings of each program (e.g., number of faculty in each program, number of publications produced annually by each program). Thus, the magnitude of a direct transfer of reputation from one program to another may be less significant than popularly believed.

Studies have also proposed that the reputation of undergraduate pro-

grams is greatly influenced by the reputation of graduate programs at the same institution (Astin, 1985). The results of the current study indicate that some of the variables that would presumably facilitate or inhibit high graduate program ratings (e.g., average salaries for full professors) are closely related to variables that appear to affect undergraduate reputational ratings (e.g., average SAT scores of entering freshmen). Other variables, such as those associated with levels of research activity, appear to exert a simultaneous influence on both graduate and undergraduate reputational ratings. The high multicollinearity among variables representing institutional characteristics makes it difficult to determine to what extent the similarity between reputational ratings is due to a direct transfer of reputational influence between the two kinds of ratings and to what extent the similarity in ratings occurs simply because the underlying variables for each set of ratings are closely related, or in some cases, identical to each other.

Rater familiarity and related effects. Reputational ratings have been referred to as "popularity contests," where colleges with which raters are familiar, or which they have reason to like, receive high scores, and colleges that are less familiar or less likable receive low ratings, regardless of any meaningful differences among institutions. Yet, almost all of the variance in reputational ratings of private and public universities appears to be attributable to actual differences in institutional characteristics. "Image," "popularity," "tradition," and other less substantial ingredients appear to have a relatively modest effect on an institution's reputational rating. To the extent that rater familiarity or other similar variables are correlated with reputational ratings, these variables are also likely to be highly correlated with variables representing institutional characteristics (Baird, 1991).

Institutional Factors Related to Reputational Ratings

The results of this study indicate that differences in ratings of undergraduate educational reputation and ratings of scholarly quality of program faculty at private and public universities are largely explained by the same two common factors, *size* and *selectivity*. The size factor has high loadings for variables representing institutional and average departmental student enrollment, number of instructional faculty, number of bound library volumes, and level of institutional and departmental research activity. The selectivity factor has high loadings for variables representing average SAT scores of entering freshmen, freshman applicant acceptance rates, graduation rates, instructional and student services expenditures per FTE student, percentage of faculty with doctorates, and average salaries for full professors. These two common

factors explain between 85% and 90% of the variance in both *USN&W* reputational ratings of undergraduate education (undergraduate academic reputation) and average NRC ratings of scholarly quality of program faculty for both public and private institutions.

Research and Undergraduate Educational Reputation

The results of this study indicate that the amount of research performed by an institution contributes substantially to the reputation of the institution's undergraduate educational program. This may occur because faculty with high research and publication outputs are regarded as being more effective educators than faculty engaging in less research. In turn, the perceived excellence of faculty may contribute to enhanced undergraduate educational reputation. It is difficult to determine the exact contribution research activity makes in explaining differences in undergraduate educational reputation among institutions, but the results of this study indicate that research activity uniquely explains between 35% and 52% of the variance in *USN&W* reputational ratings. Alternative explanations for the strong correlation of the size factor with reputational ratings of undergraduate education, such as increased prestige associated with the structural aspects of extensive graduate education or some perceived benefit associated with larger enrollment size itself, are less satisfactory than the proposed connection between research activity and undergraduate educational reputation.

Implications

The Interaction between Higher Education and its Environment

Many of the mental changes brought about by education happen largely as the result of a conscious, planned effort on the part of faculty and administrators. However, colleges also influence people's thinking in ways that are less well planned and at times completely unintentional. The types of cognitive and affective changes that occur in students and other individuals as a result of their interaction with colleges are reflected in at least three kinds of measurable psychological constructs (a) student learning and student growth, (b) consumer satisfaction, and (c) consumer attitudes. Student learning and student growth are concerned with the cognitive and affective changes that occur in students as a result of college attendance. The other two constructs, attitudes and satisfaction, pertain to changes that occur in students as well as in other individuals affected by higher education.

Consumer Satisfaction with Higher Educational Services

It is conceptually and operationally important to distinguish between consumer satisfaction and consumer attitudes toward a college or university. Simply put, satisfaction measures how good an institution is compared to how good it should be; attitudes help to measure how good an institution is compared to other institutions. The gap between expectations and perceived service (the heart of the satisfaction/dissatisfaction process) can be narrowed by providing a higher level of service or by bringing student expectations of the college experience more in line with what students will actually find once they enroll (Boulding et al., 1993). Levels of student satisfaction are likely to be strongly related to student tendencies to re-enroll (repurchase), and either to make positive comments about their experiences (word of mouth) or to make negative comments (complain) (Bearden & Teel, 1983). Because complaining students and their parents make very persuasive constituents, the intensity of state initiatives aimed at improving the "quality" of undergraduate education in many cases may be driven more by expressed dissatisfaction with higher educational institutions than it is by deficits in student learning or unfavorable student attitudes toward institutions.

Consumer Attitudes Toward Higher Educational Institutions

The development of student talent should be the primary mission of any college or university. Yet, an institution needs resources in order to make its mission achievable. That is where the attitudes of individuals toward an institution become important. Attitudes reflect the extent to which individuals find a particular college desirable or believe it to be need satisfying.⁶ Thus, the attitudes people possess largely determine the value they place on a college and its constellation of benefits in transactions with the institution. Institutions that are favorably perceived find it easier to obtain resources from their environment, because the people with whom they are dealing believe that these institutions have a more valuable commodity to offer.

Attitudes toward an institution are likely to be greatly influenced by the institution's *perceived service quality* among consumers (see Figure 1). Consumer attitudes toward a college are closely related to their intentions to act with respect to the college and are closely related to their actual behavior. Examination of reputational ratings may offer the opportunity to learn more about factors that have an important influence on individual decisions in such matters as college attendance choices,

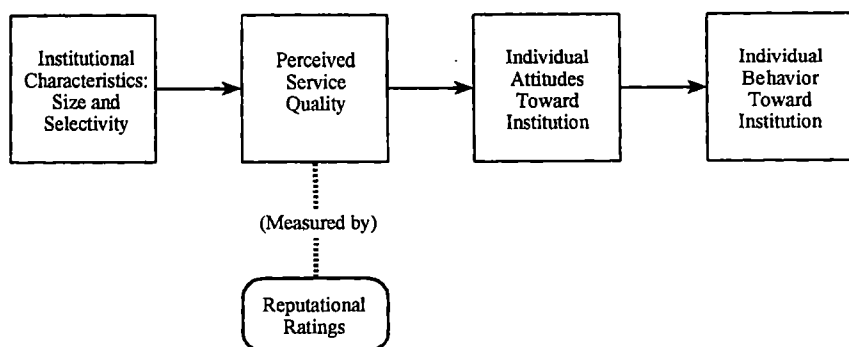


FIG. 1. Proposed Relationship of Constructs that Influence Behavior Toward Institutions and Resource Acquisition.

employer choices regarding college graduates, college tuition setting, and perhaps also the awarding of research grants to faculty members and charitable gifts to institutions (see appendix).

The Effect of Research Activity on Consumer Affective States and Cognitions

Studies have shown that the effect of increased faculty research activity on student learning outcomes appears to be generally small and more likely to be beneficial than harmful (Feldman, 1987; Volkwein & Carbone, 1994). Employing the litmus test of "effect on student learning," there appears to be little justification for the reduction of institutional research activity. However, there is a widespread public belief that faculty devotion to research damages undergraduate education. Students and their parents often express dissatisfaction with the level of service that undergraduate students receive at major universities. Certainly some of the sources of student dissatisfaction, such as the shift of ranked faculty away from undergraduate instruction, are largely attributable to an increase in faculty research activity. Yet despite the potential decreases in student satisfaction that can be a side effect of institutional research activity, most students, like other members of society, believe that institutions that strongly engage in research are superior in important ways to institutions with lower research outputs. A recent survey of college freshmen by the Higher Education Research Institute (Sax et al., 1995) found that "college has a very good academic reputation" was the most frequently given response when students were asked to identify important factors that influenced their choice of a college or

university to attend. Perhaps students and other members of the public do not always make the mental connection between the process of research (which may often contribute to consumer dissatisfaction) and the outcome of the research process (which leads to greater academic reputation and more favorable consumer attitudes). This paradoxical situation, dissatisfaction coupled with favorable attitudes, may explain why people continue to complain about undergraduate educational programs at research institutions while they simultaneously fight to gain admission to them and are willing to pay higher than average tuition once they enroll.

Conclusion

University administrations have been accused of a preoccupation with prestige. In cases where the pursuit of institutional reputation undermines efforts to maintain necessary levels of student learning and development, this criticism may be warranted. However, just as it is possible to place too much emphasis on the acquisition of resources, it is possible to give these considerations too little attention. It has always been necessary for institutions to structure their activities in ways that make them valuable to the environments in which they exist. This is how institutions survive. In the current era of level or declining state support, a public institution's ability to attract funds from other sources is becoming increasingly essential. Optimizing a university's value in the minds of its many constituents clearly requires providing a meaningful education to its students, and there is strong evidence that this cause is also advanced by maintaining a vigorous level of research activity.

Universities place a high value on research because the environmental constituents with whom they transact believe that research achievements add value to an institution's services. Classes taught by experts are still in great demand. It has become almost a cliché to suggest that lasting higher educational change depends on a change in faculty reward structures. Perhaps such changes will remain superficial unless similar changes occur in the larger reward system that exists between an institution and its environment. It seems ultimately futile to create internal reward systems that diminish the value of research when funding from so many important environmental revenue sources is proportionally related to institutional research activity. Institutions put in this position will continually be working at cross-purposes. In the end, the market for higher educational services will continue to exert a strong gravitational pull on university actions.

APPENDIX

Consumer Attitudes Toward Higher Educational Institutions

This study describes some of the factors related to the reputation of graduate programs (as seen by faculty at peer institutions) and the reputation of undergraduate education (as seen by college administrators). A limitation of this study is its lack of direct perceptual measures of higher education from the perspective of college students, parents, employers of college graduates, and other groups affected by higher education. Thus, the possibility exists that the ratings used as dependent variables in this study convey the opinions of those who are employed by colleges but are much less reflective of those who are served by them. The evidence briefly presented here indicates that this is not the case.

Similarity of Perceptions across Groups and the Potential Importance of Reputational Ratings

Astin (1985) has proposed that there is a "remarkable consensus" among reputational ratings of institutions given by students, faculty and other groups of individuals. In a study examining student perceptions, Litten and Hall (1989) found that, in general, a college's capacity for gaining high admission rates for "graduates who apply to top graduate or professional schools" was considered the most important indicator of college "quality" by high-school seniors and their parents. (The definition of quality employed by Litten and Hall is essentially consistent with the term *perceived service quality* from the marketing literature, which is to say, essentially the same as *reputation*.) Using this criterion, the colleges selected as highest in reputation by parents and prospective freshman students are also very likely to be the same ones selected as highest in reputation by college administrators and faculty.

A recent large-scale survey of college freshmen by the Higher Education Research Institute (Sax et al., 1995) found that "college has a very good academic reputation" was the reason most frequently given as being "very important" in the selection of a college to attend for private and public university students (62.8% of responses). The second most commonly given reason was "college's graduates get good jobs" (52.2% of responses), followed by "college's graduates gain admission to top graduate/professional schools" (33.9% of responses). This indicates that institutional reputation plays a dominant role in student college attendance choices for university students and that institutions possessing the highest academic reputations (i.e., possessing the highest perceived service quality in the eyes of the public and academia) are also the ones that are seen as most desirable by students (i.e., have favorable student attitudes directed towards them).

A comparison of reputational ratings of university law schools given by faculty and administrators of other law schools (similar to NRC reputational ratings), and reputational ratings of the law school's graduates given by employers of graduates (senior law firm partners and judges) shows that ratings by these two groups are highly correlated with each other ($r = 0.917, p < 0.0001$) (Morse, Donohue, Sanoff & Shapiro, 1994). The high correlation is noteworthy considering the wide range of criteria each group might potentially use in determining their ratings. The starting salaries of new law school graduates are also strongly correlated with reputational ratings of law schools given by law school faculty ($r = 0.853, p < 0.0001$) and employers of law graduates ($r = 0.858, p < 0.0001$) (Morse et al., 1994). For students whose college attendance decisions are strongly shaped by future career considerations, student perceptions of institutional desirability may be closely parallel to the perceptions of future employers and faculty.

The Relationship between Reputational Ratings and University Tuition-Construct Validation

One rationale for suggesting that reputational ratings may generally capture student attitudes toward different higher educational institutions is provided by examining the relationship between reputational ratings and university tuition. Construct validity can be established through a series of tests that examine the relationship between a variable that is proposed to represent a particular construct and a second variable that measures a second construct, where the second construct is theoretically related to the first (Carmines & Zeller, 1979). In the following analysis it is proposed that perceived service quality (as measured by reputational ratings) is strongly correlated with student attitudes toward particular institutions, and student attitudes are, in turn, related to the value students place on the services of each university (as measured by tuition charges). Therefore, if reputational ratings serve as an acceptable proxy for student attitudes toward different institutions, reputational ratings for different colleges should be substantially correlated with their tuition charges.⁷

Table 5 shows the correlations among some of the variables used in this study and 1994-95 undergraduate instate tuition and fees at public institutions and 1994-95 undergraduate tuition and fees for private institutions. The results show that undergraduate instate tuition and fees for public universities are moderately correlated with the

TABLE 5

Relationship of private and public university tuition and fees to other institutional variables
Correlation Coefficients (private $n = 42$; public $n = 85$)

	Private U. Tuition & Fees	Public U. Instate Tuition & Fees
Avg. NRC Rating Scholarly Quality of Program Faculty	0.567****	0.215*
USN&W Reputational Rating of Undergraduate Education	0.580****	0.208
Average SAT scores of entering freshmen	0.619****	0.171
Acceptance rate of freshmen applicants	-0.499***	-0.119
Student/faculty ratio	-0.376*	-0.289**
Percentage of full-time faculty with doctorates	0.481**	0.141
Instruction & student services expenditures per FTE student	0.382*	0.401****
Graduation rate of entering freshmen	0.548***	0.454****
Number of bachelor's degrees granted	-0.091	-0.020
Number of master's degrees granted	0.180	-0.057
Number of doctor's degrees granted	0.421**	0.047
Number of FTE instructional faculty	0.321*	0.204
Number of bound volumes in library	0.374*	0.040
Research and development funds from Federal agencies (NSF)	0.455**	0.172
Research and development funds from all sources (NSF)	0.471**	0.097
Current fund expenditures for research (IPEDS)	0.428**	0.101
Average salary for full professors	0.470**	0.401****
Average number of faculty in each department	0.506***	0.079
Average number of graduate students in each department	0.368*	0.124
Average number of doctor's degrees granted by each department	0.466**	0.174
Average number of publications from each department	0.480**	0.125
Avg. num. publications per faculty member of each department	0.409**	0.143

Significance of Correlation Coefficients: * = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$. **** = $p < 0.0001$.

level of instructional and student services expenditures per FTE student ($r = 0.401$, $p < 0.0001$), but only weakly correlated with *USN&W* ratings of undergraduate educational reputation. This suggests that although public universities may be influenced by comparisons with regional peer institutions, their instate tuition policies are more strongly influenced by their current level of operational costs per student (i.e., *proportional cost pricing*) (Shaman & Zemsky, 1984).

The picture is different for private universities. Private university tuition and fees are less closely correlated with operational costs per student than they are with measures of reputation (i.e., *peer pricing*). Private university tuition and fees are strongly correlated with *USN&W* ratings of undergraduate educational reputation ($r = 0.580$, $p < 0.0001$). This suggests that reputational ratings may serve as a somewhat useful proxy for student attitudes toward undergraduate educational offerings at private institutions (Shaman & Zemsky, 1984), and thus the construct validity of reputational ratings as a measure of student attitudes is partially established. Employing private university tuition and fees as a dependent variable and Factor 1, *size*, and Factor 2, *selectivity*, (Table 1) as independent variables shows that although private university tuition and fees are most strongly correlated with Factor 2, selectivity ($r = 0.475$, $p < 0.001$) they are also significantly correlated with Factor 1, *size* ($r = 0.365$, $p < 0.05$). Just as *USN&W* ratings of undergraduate educational reputation are strongly correlated with institutional research activity, private university tuition and fees are also strongly correlated with research activity.

The primary determinant of demand for educational services offered by universities should normally be the perceived value of those services to potential consumers. In a situation where market forces are relatively unconstrained (i.e., private university tuition pricing), perceptions of the desirability of undergraduate education at various institutions as seen by college administrators (*USN&W* ratings) appear to operate in the same way that the attitudes of students or other "paying customers" could be expected to do in a market model (i.e., people should be willing to pay more for educational services that they believe to be more need-fulfilling than other comparable services). This analysis suggests that, if there are differences between the attitudes of college administrators and the attitudes of consumers in this regard, at least in functional terms the differences may not be large.

Notes

¹Empirical evidence suggests that organizations reap rewards as perceived service quality is brought up to consumer expectations. However, as soon as perceived service quality begins to exceed a consumer's desired service level (i.e., consumers' needs are "over-fulfilled") the incremental benefits to the organization in terms of additional consumer satisfaction are often very minimal. (See Oliver, 1995; Zeithaml, Berry & Parasuraman, 1996).

²Unlike methods such as multiple regression, factor analysis has no statistical tests to indicate an appropriate ratio of observations to variables being analyzed. As the number of observations increases, the reliability of estimates of association among variables also increases. Thus, the likelihood that a particular factor loading represents the true degree of association between that variable and an underlying factor is somewhat greater in the analysis for public institutions than it is for private institutions. In this study differences in sample size are of less concern in defining appropriate factor structures for each group of institutions. Because each of the two factors for each set of institutions has a large number of variables that load highly on each factor, the chances that the underlying factor structures are correctly identified is quite high.

³Whenever a large number of significance tests are examined at once, the chances increase that some of the tests will indicate "significant" results even when they are not actually present. The chances of encountering a false test result decrease dramatically

as the level of significance of the test rises (England, 1975). Thus, even though correlations that are significant at the 5% level are shown in Tables 3, 4, and 5, they should be given considerably less weight than correlations that are found to be significant at higher levels.

⁴In comparing one correlation to another it is often more revealing to square correlation coefficients (r) to obtain coefficients of determination (r^2). The use of coefficients of determination for the relationships in Table 4 shows that the association among measures of selectivity and doctoral enrollments for public institutions is considerably stronger than the association among measures of selectivity and bachelor's enrollments.

⁵After this manuscript was accepted, a path analysis employing LISREL was performed with the 85 public institutions. Latent variables were created representing research activity, enrollment size, selectivity, and undergraduate academic reputation. The results confirm that research activity, rather than enrollment, exerts the dominant influence on reputation.

⁶In evaluating consumer attitudes it is helpful to distinguish between overall attitudes toward certain educational services (e.g., undergraduate education) and attitudes regarding specific aspects of those activities (e.g., student after-class interactions with faculty). It is well within human capability to object strongly to specific aspects of a university's educational program while possessing a favorable attitude toward the institution's program itself. This may occur because the negatively evaluated attributes carry less weight in terms of overall attitudes than other positively evaluated attributes.

⁷Although correlation does not establish causality, the possibility that an institution can enhance its reputation by raising its tuition is largely discounted. Although the marketing literature reports examples of this phenomenon (i.e., *prestige pricing*), any price effect on attitudes would likely be small compared to effects generated through actual changes in the institutional characteristics represented by Factors 1 and 2.

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Fund Raising and the College Presidency in an Era of Uncertainty

From 1975 to the Present

Introduction

When Harvard President Neil Rudenstine took a leave of absence at the end of 1994 in order to recover from exhaustion and to undergo a battery of medical tests, several published reports cited fund-raising stress as one contributing factor [18, 42]. In assessing various analyses offered by the higher education community regarding this event, Robert Hahn, president of Johnson State College, stated, "Most observers have relied on familiar fallacies and myths." Hahn also noted, "The simplistic quality of most of the commentaries on Mr. Rudenstine's leave of absence suggests that much remains to be done to enlarge our understanding of the perils of [academic] leadership" [40, p. A64].

The Rudenstine case — and Hahn's remarks — underscore the need for a comprehensive history of the academic presidency (Joseph N. Crowley's 1994 book, *No Equal in the World*, sets the stage for this). Such a work would provide historians and other scholars as well as journalists and practitioners with a broader context from which to base their understanding and frame their views of current events and trends affecting the academic presidency. Such a work would also help to elevate the level and quality of discourse regarding academic chief executives and fund raising. Unfortunately, space does not allow for such an in-depth treatment of the subject here. Instead, this article will provide a context and overview for the period from 1975 to the present, described by Edward Lilly as the Era of Uncertainty [55].

In so doing, I will attempt to make a number of salient points, including the following:

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1. The past 20 years have been correctly called an Era of Uncertainty in higher education because of certain defining characteristics.
2. During this period, both public and private universities have increased their commitment to private fund raising.
3. The increased emphasis given to private fund raising by public universities has changed a tacit, long-standing agreement between public and private institutions.
4. Fund-raising campaigns have become a way of life at many institutions.
5. Academic presidents must devote a significant portion of their time to fund-raising activities.
6. Many presidents have difficulty adjusting to their roles as fund raisers.
7. Fund raising and financial affairs in general are among the most high-profile duties/endeavors of a president and among the skills/attributes most prized by trustees as well as some faculty and alumni, and these issues are widely reported by the media.
8. Due to the increasing complexity of fund raising, presidents and other university personnel must have greater familiarity with tax laws, planned giving, estate planning, and other technical aspects of philanthropy.
9. Fund-raising considerations play a major part in the presidential selection process as well as the length of time incumbents remain in office.
10. There has been a slight trend in recent years toward hiring presidents with a background in development or business, although promotion from within academic ranks is still the norm.
11. Presidents should spend their time and effort in fund raising on the cultivation and solicitation of major gifts and in providing administrative leadership.
12. Presidents must emphasize a team approach to fund raising in which they play the dual roles of quarterback/athletic director.

The Era of Uncertainty

The decades following World War II have been called the Golden Age in American higher education. Federal funds flowed freely, enrollments soared, tremendous sums were expended for construction of new facilities and/or campuses, the community college movement had its flowering, and state university systems were created, to mention but a few notable characteristics [44, 77, 89].

By way of comparison, Whetten and Cameron contrasted this Golden Age with the Era of Uncertainty:

For at least two decades after World War II, higher education administrators had a relatively easy job. By traditional standards, administrative effectiveness was almost universal. Enrollments were increasing, revenues were growing, innovations in the form of new and experimental programs were common, and almost unprecedented prestige was associated with college professors and administrators in the minds of the public. The environment in which higher education existed was largely protected from outside competition (e.g., almost no corporations offered degree granting programs, and accreditation was restricted, for the most part, to college and university campuses), and costs of college were offset by the availability of large amounts of federal dollars.

All that changed in the 1970s and was magnified in the 1980s: the availability of federal funds was severely curtailed; the legitimacy and usefulness of college degrees was called into question; private corporations began entering the higher education business at a rapid pace and now spend more on education than do colleges and universities; shifting demographics resulted in declining enrollments; and, the public prestige associated with faculty and administrator status plummeted along with their relative earnings [101, p. 35].

For these and other reasons, by the mid-1970s, the postwar boom in higher education had begun to fizzle [44]. According to one source, "Overnight, it seemed, colleges and universities went from a period of plenty to one of poverty" [19, p. 391]. Many factors contributed to this change in the economic climate, and these will be explored in greater detail shortly. However, it is also noteworthy to observe that 1975 spawned several important publications relevant to the topic at hand.

First, a monograph entitled *The President's Role in Development* — apparently the first full-length treatment of this topic — reflected concerns among the nation's higher education leaders over changing expectations for presidential leadership in fund raising and institutional advancement [2].

Second, a study entitled *Giving in America* was published by the Commission on Private Philanthropy and Public Needs, chaired by John Filer of Aetna Life and Casualty Company. The Filer Commission, as it came to be known, had been organized in 1973 in order to document the significance of philanthropy in American life and raise its profile among government and business leaders. The Commission concluded that the nonprofit sector included about six million voluntary organizations with an annual income of some \$80 billion and recommended the establishment of a permanent national commission on philanthropy, an expansion of corporate giving, changes in the tax laws

to stimulate further giving, and the removal of restrictions on lobbying by charitable organizations other than foundations [12].

And third, 1975 was the year in which a landmark essay, "The Management of Decline," was first published. Its author, economist Kenneth Boulding, predicted a period of slowdown in the American economy for the next fifty to one hundred years and called for a new breed of administrators to oversee this evolution. According to Boulding:

If this age [of rapid growth] is now coming to an end, large adjustments will have to be made in our ways of thinking, in our habits and standards of decision making, and perhaps even in our institutions. The prospects for the next 50 to 100 years, barring a major catastrophe such as nuclear war, suggest that we are now entering the age of slowdown.

. . . The implications of all this for education, and especially for higher education, are profound. Education is likely to be the first major segment of the economy to suffer a decline, and management of this decline may very well set the tone for the management of the general slowdown.

. . . One of education's first priorities, therefore, should be to develop a new generation of academic administrators who are skilled in the process of adjusting to decline. . . . Before we can do this, however, we need to study decline through research programs, beginning perhaps with the educational system, where decline is already upon us. [10, pp. 8-9].

In commenting on this at the time, Clark Kerr stated, "The people who were hired to build in the '50's and early '60's are kind of out of date, and so are the people who were hired in the late '60's and early '70's to handle students and public-relations emergencies. The talents needed now are financial talents, the ability to cut and trim" [88, p. A4]. Kerr later described this presidential type as "a kind of super-accountant" [70, p. 1].

As an example, Dale Corson, former president of Cornell University, wrote a memorandum in 1975 to his board of trustees, faculty, and university senate to explain why the following year's budget included a 10% increase in tuition, a \$2.3 million reduction in operating costs, and a \$1.3 million deficit. "We are at the end of an era," he commented. "The growth and the affluence of the last three decades, particularly the last two decades, are over" [56, p. A3].

Leon Botstein, president of Bard College, explained this as follows: "By the mid-1970s, the academic job market had collapsed and enrollments at graduate schools declined. The era of growth and expansive, experimental change for the university had come to an end. Retrenchment, early retirement, and faculty development became new enthusiasms." Specifically, he called 1975 a "turning point," citing the beginnings of long-term economic concern about America, doubts regarding

the possibilities of a continued American political preeminence in the world, the emergence of a serious environmental movement, and the first warnings about the state of literacy among students [9, p. 39].

Alan Hamlin, in a study of factors associated with the survival of financially endangered private colleges and universities, also stated:

Several factors combined to erode the financial base of American private colleges and universities during the 1970s: enrollments declined when the "baby boom" generation grew older; national economic trends were generally in decline — evidenced by two devaluations of the dollar, two recessions, and severe bursts of inflation and unemployment; public confidence in the performance of educators began to wane; and the burden of judicial litigation and governmental regulation began to take its toll on higher education [41, p. 2].

In addition, George Keller cited a 1981 study by NACUBO which found that fewer than 50 U.S. colleges and universities had endowments of \$100 million or more, and fewer than 200 had an endowment larger than \$10 million. According to him, "Nine out of ten institutions in the United States, therefore, are precariously financed, and many live at the brink of jeopardy and instant retrenchment" [44, p. 152]. In citing the source of these difficulties, Keller explained:

[T]he formation of the OPEC cartel in 1973, and the resulting higher prices for oil, suddenly caused fuel bills to triple or quadruple. Double-digit inflation in the late 1970s brought rapid increases in the costs of library books and periodicals, educational and scientific equipment, and labor. The possible financial collapse of the social security system mandated higher college contributions to its members in the system. As health care costs ran up, major medical insurance costs escalated. New expenses for the handicapped and for the implementation of affirmative action plans became necessary. As tenure tightened, the number of lawsuits against universities rose, and the size of university legal staffs often had to be tripled, at considerable expense. The computer revolution required costly purchases of new hardware. More detailed federal accounting procedures, the rise of state coordinating agencies and their voracious demands for data, and nervous state budget officials seeking greater accountability forced the expansion of white-collar institutional research, accounting, and reporting staffs. Finances came to dominate campus management [44, pp. 10–11].

As a result of these and other forces, colleges and universities of all varieties increasingly looked to fund raising from private sources to supply a greater percentage of their needs. In particular, many public institutions began private fund-raising programs during the mid-1970s, and by the early 1980s they had learned to look to the private sector for the resources needed to fulfill their aspirations [38, 105].

Growth in Educational Fund Raising

During the 1980s, tuition grew by double digits almost annually at most colleges and universities [38], while the stock market recorded an average annual gain of 17.4% [13]; yet despite this, revenue was still insufficient to balance budgets on most campuses, and as a result, institutions increasingly looked to voluntary support, especially capital campaigns [3, 31, 54, 80, 95, 97]. According to Geiger, "Fund-raising campaigns became virtually ubiquitous: in 1990, 38 of the 55 AAU universities were either conducting or planning such campaigns and at least six envisioned billion-dollar targets" [38, p. 314].

Gains in collegiate fund raising were not distributed equally, however. According to Breneman, "Many small [private] colleges did not have a history of sophisticated fund-raising activities before the 1980s, but most advanced far along the learning curve during that decade, launching campaigns and developing the necessary volunteer support organizations required for success" [13, pp. 33–34]. He then provided a few examples from his 1994 study of 212 liberal arts colleges:

One tends to think of fund-raising as having a long history in private colleges, and yet, in several of the colleges visited, professionally conducted development efforts are of rather recent origin. At Bowdoin, for example, the development office is located in a former president's home on the edge of the campus, physically removed from the president's office and other parts of the campus. Prior presidents apparently did not look favorably on development, and its location reflects the marginal status accorded to it in the past. The vice president observed that Bowdoin has only had a fully professional development staff for about five years, suggesting that the college has considerable unrealized potential in fund-raising. Dickinson College, founded like Bowdoin in the eighteenth century, is also a fairly recent convert to development, with such efforts conducted by a fully professional staff for less than a decade. Although Dickinson has over 20,000 living alumni of record, the college's annual fund just surpassed the \$1 million mark recently. . . .

Every college I visited had just completed a capital campaign, was in the midst of a campaign, or was planning the next one. The dollar amounts of these actual or planned campaigns ranged from a low of \$10 million to a high of \$150 million. . . . Presidents reported definite expectations in the college community on their role and performance in this aspect of the job, as well as the view that development will require ever-increasing presidential time in the years ahead. Not surprisingly, however, presidents at these colleges (as would be true of any set of institutions) differ in their skill and interest in fund-raising, and development officers were candid with me in expressing such judgments. In earlier years, a president who disliked fund-raising could spend little time doing it, but that is less true today. Tension between the president and the development staff is increasingly common as expectations rise, and I observed several instances of that problem. . . . [13, pp. 108–109].

K. S. Kelly added another reason why the development function has been slow to develop at some private colleges:

[W]hen I assumed the vice presidency of development and public relations at Mount Vernon College in 1982, this small, private, women's college in Washington, DC was approximately \$2 million in debt. Contributing to this deficit was the fact that for generations, the college had depended on its relationship with Marjorie Merriweather Post, heiress of the Post Cereal fortune, an alumna, major donor, and trustee of the college. According to fellow administrators, this dependency was so strong that for years before her death Ms. Post would schedule an annual visit to the president to learn the amount of deficit incurred by the college that year, at which time she would write a personal check to cover the deficit.

Convinced that Mrs. Post's role as a trustee would prompt her to provide a major bequest on her death, Mount Vernon continued to operate in the red, failed to build an adequate endowment, and rarely solicited gifts from other alumnae or friends. It is not surprising, then, that when Mrs. Post died and Mount Vernon College received only \$100,000 and 10 Cadillac limousines, the college was unprepared to adjust to its new financial circumstances; therefore, in 1982, much of my efforts as vice president were spent trying to convince other wealthy alumnae, who had never been solicited by their alma mater, that the college needed their private support [46, p. 181].

Despite these examples, however, private colleges have historically been much more active in fund raising than their public counterparts [24, 25, 58, 62, 66, 81, 84, 87], although that began to change about 20 years ago, as demonstrated by a 1979 study of capital campaigns at 1,912 U.S. colleges and universities. The study found that during an 11-year period (1974–84) about half of these institutions were either conducting a campaign or planning a campaign for the near future. The study analyzed data on capital campaigns begun or completed during the period 1974–79, and also for the period 1979–84, substituting “contemplated” for “completed.” Both periods were 5.5 years in length with 30 June 1979 as a midpoint [22].

Several interesting findings were reported. Roughly 9% of the public and 37% of the private institutions initiated campaigns between 1974 and 1979. The average campaign lasted 3.6 years. The combined total of all campaign goals between 1974 and 1979 was \$8.5 billion. Of the institutions completing their campaigns by 1979, 88% of public and 79% of private institutions met or exceeded their goals. The average goal for public institutions was \$7 million; for private institutions, \$15 million. Private institutions conducted 80% of all campaigns and sought 89% of all funds. Research and doctoral universities — primarily private institutions — received 50% of all funds although they conducted only 10% of all campaigns. Endowment funding was the leading purpose of cam-

paings, accounting for 50% of all funds sought, followed by construction of new facilities (25%) and renovation (10%). This was true at both public and private institutions. Current operating funds accounted for 9% of public institution goals and 16% of private campaign goals. Only 18 institutions had campaigns of \$100 million or more [22].

During the later period (1979–84), a definite trend emerged among public institutions as the percentage of those beginning or planning a campaign doubled (from 9 to 18), whereas among privates, the percentage (37) held constant. The total goal for all public campaigns was about \$1 billion, close to a 50% increase over the early period, while the total goal for private campaigns climbed by 30%. It is interesting to note that during 1979–84 only 4% of public community colleges were involved in a campaign [22].

“Twenty years ago, there weren’t many public universities, if any, engaged in fund-raising,” said Bob Bryan, interim president at the University of South Florida during 1993–94 [108, p. B7]. Gene Budig, former chancellor of the University of Kansas, added, “The country’s leading state universities are either in the final stages of large fund drives or about to launch new ones. No one is standing by with indifference. That was not true 25 years ago, when most people in higher education regarded systematic fund raising as the purview of private colleges and universities” [17, p. 39].

In addition, the historical pattern of campaigning has changed, according to Smith:

Traditionally, institutional requirements for capital funds were kept separate from the needs for annual operating support. The financial development programs of most institutions could easily be divided between the need for physical expansion or rehabilitation of facilities and the need for current budgetary support. Building programs were perceived to be inherently discrete, whereas academic programs obviously required continuous funding on an annual basis. In recent years, however, the financial pressures on colleges and universities have led to a change in these perceptions, and the multipurpose fund drive, combining appeals for operating funds and capital funds, has emerged. . . . [94, pp. ix–x].

According to Dove, four distinctive campaign models can be found today: the traditional capital campaign, the comprehensive campaign, the single-purpose campaign, and the continuing major gifts program [30]. This array of titles can be confusing, especially because many institutions fail to differentiate between them. Most large campaigns in the modern era are called capital campaigns but are really comprehensive campaigns. At any rate, the preponderance of these campaigns, both in number and size, has continued to increase in recent years, and this trend shows no sign of slowing.

In the late 1980s, for example, several writers noted that more than 60 of the nation's colleges and universities were then conducting campaigns to raise more than \$100 million each [54, 80, 97]. "You're not in the major leagues if your goal is under \$100-million," said William P. McGoldrick, former vice president for institute relations at Rensselaer Polytechnic Institute [3, p. A75]. Indeed, several institutions have upped the fund-raising ante by launching campaigns for \$1 billion or more.

First out of the blocks was Stanford University with its announcement of a 5-year, \$1.1 billion campaign beginning 1 February 1987. Stanford reached its goal ahead of schedule in June 1991 and eventually raised \$1.27 billion. This premier feat is even more remarkable when the constant stream of negative publicity generated during this period is considered.

"It isn't every campaign that has a major unfortunate change in the tax laws, a stock market crash, and a \$160 million earthquake," said Donald Kennedy, former Stanford president [63, p. A34]. It also isn't every campaign that has a federal investigation over the indirect-cost rate charged for research, a long-time medical educator who resigns after claiming sexual harassment and discrimination by male faculty and administrators at the university's medical school (she later withdrew her resignation), and a presidential resignation and divorce.

Stanford's announcement, and subsequent success, was followed by other campaigns with similarly lofty goals among the elite ranks of American universities. Even Oxford, the stately ancestral monarch of higher education, has since hired its first fund-raising director and recently completed a modest \$400 million campaign, its first-ever American-style fund-raising effort [83].

Boston University and New York University launched billion-dollar campaigns in 1988 that will extend to the end of the century. Next to throw its hat into the ring was the University of Pennsylvania, which announced in 1989 a 5-year, \$800 million campaign and later raised the goal to an even billion after a series of successes. Late in 1990 two Ivys — Columbia and Cornell — also announced plans for 5-year, record-setting campaigns. Columbia's goal was \$1.15 billion and Cornell targeted \$1.25 billion. Michigan and Yale also joined the "billion-dollar club," launching in 1992 the public phase of campaigns for \$1 billion and \$1.5 billion, respectively.

In 1994 Harvard announced a campaign for \$2.5 billion, and several other universities are in the planning or early stages of billion-dollar campaigns, including the University of California at Berkeley, the University of Illinois at Urbana, Champaign, the Pennsylvania State University, the University of Southern California, and the University of Texas at Austin.

According to Matthews:

Gone are the days of souvenir mugs and T-shirts; nowadays the focus is on detail, pressure and glitz. Stanford's centennial road show [to 31 cities], for example, paired faculty panels on biomedical ethics with a singing-and-dancing extravaganza requiring a technical crew of 40 to set off lasers, fireworks and an on stage bonfire [57, p. 73].

The 1990s may well become known as the "Billion-Dollar Decade" in higher education fund raising, added former Cornell President Frank Rhodes. According to him:

The move toward billion-dollar campaigns reflects, on the one hand, the fact that there are a substantial number of individuals in our society who are capable of providing multimillion-dollar gifts. Rather than making donors of more modest means feel that their own contributions are insignificant when compared to the need — as some higher education observers had initially feared — billion-dollar campaigns have opened up new levels of giving that campaigns for smaller amounts might never have tapped.

Billion-dollar campaigns reflect, as well, the magnitude of the financial challenges facing many institutions as they seek to attract and retain high-quality faculty and staff; maintain their libraries, computing centers, dormitories, and other facilities; purchase up-to-date equipment for teaching and research; and provide enough financial aid to make their programs accessible to students from a variety of economic circumstances. With a substantial number of institutions charging students more than \$20,000 a year for tuition, fees, room, and board, with federal financial aid programs covering only a fraction of the cost, with increased competition for federal research dollars and limited funds for facilities, private support is no longer merely a welcome add-on that can provide a margin of excellence. In many cases, it is essential to institutional survival [79, p. 65].

This success in fund raising has not escaped notice. In an initial ranking of the 400 nonprofit organizations in the U.S. receiving the most private support, the "Philanthropy 400" for 1990 included 141 colleges and universities, "far more than any other kind of organization" [76, p. 20]. Many of those listed indicated that they were involved in a capital campaign.

However, despite their many benefits, campaigns often engender unrealistic expectations, especially among faculty members. Robert S. Shephard offered an insightful and comprehensive analysis of this phenomenon. According to him, campaigns often have a 12-year cash flow spread:

Fund-raising campaigns are typically five-year efforts. That is where the confusion starts, for it is often assumed that solicitation begins in the first year and that by the fifth, all the money has been collected. Actually, however, the cash flow of most campaigns stretches over 12 years or more.

Fund-raising drives are five-year efforts only in their public phases, which begin after the campaigns and financial goals are announced. The

public phase typically is preceded by a two-year private effort to collect gifts and pledges from trustees and previous major donors. . . .

Adding to the confusion is that commitments made during both the private and public phases of the campaign are likely to be five-year pledges. Seldom do donors make lump-sum cash gifts. Thus, the cash flow in a typical campaign extends from the first payment in the first year of the private phase to the final payment on a pledge made during the last year of the public phase. Hence the 12-year spread for gift revenues [90, p. A48].

Next, Shepard pointed out that fund-raising totals do not equal available cash:

It is important to understand how campaign gifts are counted, so as not to be led astray by the numbers that appear periodically on the development office's scorecard. The numbers reported reflect a combination of cash received and pledges made. They do not equal cash that is available.

Fund-raising campaigns are not the total answer to the budget woes of colleges and universities. Major gifts, the bread and butter of all successful campaigns, often are designated for specific, restricted purposes. Although we do our best to match donors' interest with university priorities, it is not always easy to find six- and seven-figure gifts that will provide direct budget relief.

. . . Often 50 per cent or more of the gifts made to a campaign are earmarked for the institution's endowment, and most institutions follow a rule of spending only approximately 4 per cent of the endowment's market value each year. Faculty members often forget the tradeoff involved in building endowments: The long-term benefit of a large endowment means the sacrifice of short-term spendable cash [90, p. A48].

Some observers feel that the increasing dependence on private donations is also weakening the distinction between public and private institutions. Brad Choate, former development officer at Ohio State, said, "The difference between a public and a private university is in how you run it — with elected officials or not — rather than in how you fund it" [39, p. A30].

"We had to combat the misconception that Penn State is a university owned and operated by the state and having no need for private gifts," added Roger Williams, assistant vice president and executive director of university relations at Penn State. Only 22% of the University's budget comes from the State of Pennsylvania, he said, making it a "state-related" institution governed by its own board of trustees, only a few of whom are state appointees. "Our goal was to show that private dollars provide the critical academic infrastructure — endowed faculty positions, graduate fellowships, scholarships, research support — that enhances academic quality and allows us to play ball with the nation's best universities," he said [6, p. 20].

"You cannot be a first-rate public university today unless you've got

a significant amount of private contributions coming in," said Theodore Saenger, former national chairman of the University of California at Berkeley's "Keeping the Promise" campaign [39, p. A31]. Gene Budig, Baseball Commissioner of the American League, explained this view in more detail:

[T]he large state university remains only state-assisted, not fully state-supported. Tax-based state assistance, though limited, should be expected to provide the foundation for quality higher education. But it will never offer the full measure of funding required for true and lasting excellence.

Tuition, we must acknowledge, is a limited source of revenue for the state university. It must be held at reasonable levels if the institution is to remain accessible to qualified students, especially minorities.

Research grants and contracts, awarded to a growing number of leading faculty, bring in substantial revenues for the state university. But only private support, realized through an aggressive drive, can bridge the gap between adequate funding and funding for recognized excellence. Through endowment income and annual support, private donors are greatly strengthening progressive state universities. . . .

. . . True quality will emerge only when a public university blends adequate state support with a substantial private endowment. Private dollars can provide a margin of excellence [17, p. 40].

David Riesman, a Harvard sociologist and authority on American higher education, cited the new competition between publics and privates for philanthropic funds as evidence of the demise of a "tacit agreement" that has existed for decades between the two sectors [107, p. B7]. Benezet documented the earlier existence of such agreements as follows:

A . . . form of indirect yet substantial state university help to the private sector is self-denying ordinances against broadside fund raising among private sources for public colleges. Such restraints are most carefully practiced by public universities located in states with strong private colleges. Midwest state institutions have had full development staffs for many years. . . .

The State University of New York, on the other hand, has not been authorized to employ development officers on its campuses; in fact, no budget lines for campus directors of alumni affairs have yet been approved. In states where the balance of enrollments is less heavy on the public side, the influence of private college fund raising jurisdiction is evident. Even the strong fund-raising state universities espouse politics limiting their solicitation of gifts to their own alumni and immediate business affiliates in response to frequent complaints from nearby private colleges about public college fund raising [4, p. 25].

Boston University's \$1 billion campaign includes \$500 million for endowment and \$150 million for scholarships. Without the extra scholarship money, said former President John Silber, "B.U. simply cannot

hope to compete with either subsidized state schools or the much better-endowed Ivy League colleges like Harvard in attracting talented high school graduates" [8, p. 72].

Clark Kerr noted that "all institutions, within their categories and geographic regions, compete for students, for funds, for reputation" and that "private fund-raising by both public and private institutions has, in recent times, increasingly become a mechanism for competitive advantage" [48, p. 15]. At Penn State, where a major campaign was completed several years ago, plans are already well underway for the next one. David Gearhart, former senior vice president for development and university relations, said, "There's no question that Penn State will always be in a fund-raising mode. We have to be, in order to compete with our peer institutions. To stand still is in effect to take a step backward" [6, p. 24].

Barbara Taylor, director of programs and research at the Association of Governing Boards of Universities and Colleges, said, "It used to be that we had annual giving and we had occasional capital campaigns. Now the capital campaign is becoming as constant as the annual campaign has been in the past" [95, p. 10]. "We're always in a campaign," added Kendall Lewis, who recently retired as vice president for alumni relations, development, and public relations at Swarthmore College. "It's just a question of whether we're planning one, in the middle of one, or cleaning one up."

The trend is clear: colleges and universities are raising more money than ever through short-term, high-pressure, high-visibility campaigns, and this is likely to continue for the foreseeable future. Campaigns are held more often and have larger goals than in the past. Also, the use of sophisticated techniques such as prospect research and donor tracking systems has become commonplace, and the size and complexity of fund-raising staffs has greatly increased at many institutions.

In addition to the obvious goal of raising more money for their institutions, however, campaigns may also involve hidden motives. According to Matthews, "One response to the money crunch has been to undertake fund drives for staggering amounts. The size of such campaigns is often a function of prestige as well as an essential part of the annual budget" [57, p. 73]. "More boards of directors are saying, 'It's not what we can raise, but what we have to raise to beat so and so,'" explained Rick Nahm, president of Knox College [37, p. A28].

"Woe be to the fund raiser who wants to set a goal that is less than the competition's," added Gary Evans, former vice chancellor for development and university relations at the University of North Carolina at Chapel Hill. "He can find his job on the line" [3, p. A75]. And accord-

ing to Wiseman, "A president in whose tenure the university does not raise more money than it did before is a president looking for a new line of work" [102, p. 6].

Terry Holcombe, vice president for development and alumni affairs at Yale, said, "For a place that's raising more than \$100 million a year now, anything less than \$1 billion would indicate that their plans for the future call for less rather than more money." Yale plans to celebrate its 300th anniversary in 2001, and according to Holcombe, "If we don't raise \$2 billion between now and then, people here will worry" [37, p. A26].

"You can't plan a campaign today without thinking about going for a billion dollars," echoed Carol Herring, director of leadership gifts at Princeton [37, p. A25]. And Rose said many presidents feel they can never stop raising money:

Even at universities worth hundreds of millions, or even billions, of dollars, the presidents I spoke with felt they could never stop raising money. They worried about inflation; that salaries, library, and maintenance costs would rise unchecked. Or, perhaps more troublesome, that they would fall behind in the race for the most up-to-date equipment, i.e., computers. But at least one college president, who declined to be quoted, thinks that colleges have enough for their current needs and beyond. "Many of these college presidents are like squirrels, putting nuts away for the future," he says [80, p. 22].

Fund Raising as a Measure of Presidential Success

According to Rose, another more personal motive driving the culture of college fund raising is that it's "a great way to be remembered" [80, p. 22]. She cited the example of Thomas Reynolds, who retired in 1989 after 20 years of service as president of Bates College. A local news article glossed over his contribution to academics, which had been plentiful, and highlighted his two successful capital campaigns.

Similarly, George M. Harmon, president of Millsaps College, defended his \$140,435 salary and \$27,174 benefits package (for 1990-91) by explaining that since he arrived in 1978, the endowment had increased more than tenfold, Millsaps had raised almost \$50 million in two successful capital campaigns, the faculty had doubled in size, and 50% of the student body now came from outside of Mississippi, up from 20% when he was hired [52, p. A16].

Regarding CEO pay, Pfeffer and Ross, in a study of the compensation of more than 600 college and university presidents, noted that there is a strong relationship between institutional size and executive remuneration, then stated:

We expect resource-rich schools to pay more than resource-poor schools, other things being equal. This expectation can result from two different reasons. Resource munificence means that there is more to be divided among all the organization's members, and certainly the president will share in these extra rewards. It is also the case that the ability to extract resources from the environment is one important measure of an organization's effectiveness (Yuchtman and Seashore, 1967). Thus, presidents in richer schools may be compensated more highly because the very resource position of the school provides evidence of the president's effectiveness in dealing with at least one important organizational issue. This is not to say that financial performance is the only or even the most important indicator of a university's success, or that pay always is related to performance. But there is probably enough of both of these connections to argue that we should observe a relationship between financial position and pay [75, p. 81].

In another study, Whetten and Cameron found that successful presidents make an indelible impression on their campuses. According to these scholars:

In our interviews with individuals, especially in small colleges, we have been impressed with the tendency of faculty and administrators to demarcate their institution's history into presidential eras. Frequently, when we would ask a question about campus activities during a specific period of time, before the respondents could formulate an answer, they would have to first identify who the president was at that time. Their memories were clearly indexed by presidential tenure, and their recollections of what transpired on campus during each term was strongly colored by their overall evaluation of the effectiveness of each president. Events that transpired during the term of an uninspiring, ineffective president were described in a bland, colorless manner. In contrast, descriptions of activities during the tenure of spirited, effective presidents were conveyed using very emotional language and with a sense of institutional pride [101, pp. 40–41].

For example, during Leon Botstein's first 17 years as president, Bard College raised more than \$82 million. According to one observer, "The last 17 years [1975–1992] have so remade the college that the 'B' on the mat in front of the president's modest yellow house could easily stand for either name" [27, p. 48].

David McLaughlin, former president of Dartmouth, noted that "the success or failure of both a college and an administration is — in the short term — often judged on financial solvency. The fact that campaigns are measurable and many other achievements are not gives fund raising special, tangible significance" [61, p. 7]. Rita Bornstein added, "[A]n ambitious and successful campaign is one of the greatest legacies a president can leave a university or college" [7, p. 202].

Derek Bok, Harvard's long-time helmsman, added that success or failure as a president is defined in part by "how much money you raise,

not what you raise the money for" [49, p. 13]. And Gary Evans, vice president for development and alumni relations at Lafayette College, warned that "as long as colleges keep claiming record amounts of money raised, it's hard imagining a college ever cutting back" [36, p. A28].

Former Cornell CEO Edmund Day added the following observations:

The most obvious and best recognized obligation of administration is to add to the institution's resources. The task of obtaining additional funds is, in fact, so characteristic of the role of the college and university president that he is frequently described as more of a cultured mendicant than anything else. It is safe to say that the reputation of many presidents has derived largely from their success or failure as fund-raisers.

The explanation of this is relatively simple. Here is one type of accomplishment which is almost certain to provoke general acclaim. With new funds, the president can implement new undertakings and gain fresh support for his over-all program. A million dollars of new money can quiet a lot of carping criticism of any administration. It is altogether natural that any college or university administration should turn its attention increasingly to the problem of finding additional support for the work of the institution, since the administration's ability to give effect to its own constructive planning may depend largely upon the possibility of finding new financial resources [26, p. 341].

Harold Stoke offered additional insight into the continual, ongoing need for and insatiable, unquenchable nature of fund raising in higher education:

If colleges and universities are by their nature always short of funds, the college president who gets this principle firmly in mind will save himself some psychological problems. It will help him, for example, to accept the fact that he is on a treadmill. He is destined always to approach but never to arrive at the promised land [96, p. 56].

The historic importance of fund raising to higher education has even given academic presidents in the United States a kind of international notoriety. In response to government initiatives to promote greater autonomy and financial independence among French universities, Georges Haddad, president of the Sorbonne, said that he had no intention of becoming a fund raiser "like presidents in the U.S." [14, p. A45].

Fund Raising as a Factor in Presidential Selection

In fact, finance is associated with the academic presidency to such an extent that fund-raising considerations permeate all aspects of the presidential selection process. For example, Tom Ingram, president of the Association of Governing Boards of Universities and Colleges, stated,

"I think the majority of boards would perceive that situation [hiring an openly gay or lesbian president] as extremely awkward for the institution, in the fund-raising role in particular" [69, p. A20]. Presidential illness [18, 40, 42, 53] and appearance [51] have also been mentioned as having an impact on fund raising.

Edward Lewis, president of St. Mary's College, noted that while opportunities for women presidents are growing, there "has been a belief that fund raising involves working the old-boy network, which cannot be done as well by women as by the typical 53-year-old male president" [34, p. D25]. William J. Bowen, vice chairman of Heidrick and Struggles, an executive search firm, added that women "are becoming more visible, holding the right chairs, and the perceived pool is much larger than it was 10 years ago" [20, p. B8].

Thompson also cited a pair of recent studies on the presidency by the American Council on Education. The first found that in 1986, 9.3% of college and university presidents in the U.S. were women, while the second found that in 1993, that number was 12%. However, of the 400 female presidents in 1993, only 11 were at major universities.

Thompson noted that "one of the main functions of a college or university president is fund-raising from alumni" [98, p. 26]. One person interviewed by Thompson was Jadwiga Sebrechts, executive director of the Women's College Coalition. According to her, a private, coeducational institution might prefer a male president because most of its graduates are men. On the other hand, a major state university might not think a woman was aggressive enough to fight for legislative appropriations, she said.

Ronald Stead, senior associate for the Academic Search Consultation Service in Washington, D.C., was also interviewed by Thompson. According to him, "In the past few days I heard a board chairman say he thought a man would be in a better position to raise significant funds for the institution than a woman would" [98, p. 26]. Stead, a 15-year veteran of academic searches, said he hears that response less often now than he did 5 years ago.

Milley also addressed this topic in a chapter from a book on women presidents of American Association of State Colleges and Universities member institutions. Her comments were based on 18 responses to a survey she sent to the 25 AASCU women presidents. According to her, 61% of respondents said that when they were appointed, fund raising was mentioned as one of their duties. She also reported:

This author had hoped to begin to discover, "Is there a difference in fund raising techniques employed by men and women presidents?" But this is not known and probably will not be for some time because presidents, and

thus the chief fund raisers, have traditionally been men. Although women presidents have been on the increase, they remain a minority. In 1988, the twenty-five women presidents leading AASCU campuses represented only 7.8 percent of the total presidential population. Thus, despite the growing literature on fund raising and proliferation of material on presidents as chief fund raisers, there is little documentation on women presidents, let alone their role as fund raisers [67, p. 34].

The Reality of Presidential Fund Raising

However, whether candidates are male or female, the prestige and perquisites of the presidency are so enticing for many that they either fail to give serious consideration to or are simply not prepared for what will be expected and required of them in terms of fund raising, as Woodroof so dramatically documented in his study of "first-time" presidents at 36 private nonsectarian colleges and universities. For example, one rookie president stated:

I knew there would need to be a fund-raising component to the job, but I didn't realize how urgent and intense that really was. The trustees didn't do alot [sic] to prepare me. I had a sense of going in as an educational statesman, a leader, but I realized after I got there that the financial pressures were so acute, that what the college needed from me was to meet the budget. The finances drive everything — I found that out in the first few months on the job. It dawned on me that I had over-romanticized what it was going to be like to be a president [104, pp. 174-175].

Another new president in the study shared the following comments:

I was told by the board that there was sufficient funds to get the college through the summer. At the end of my first week on the job, the business manager came to me and said, 'We are down to only \$2,000 in cash with which to operate.' Given the fact that payroll was due in less than two weeks, reality set in very quickly for me. I've never been that low even in my own bank account [104, p. 175].

A third president stated, "I wasn't informed of the seriousness of the cash flow problem. I didn't know until I was in office for a week that we might not make payroll in 12 days" [104, p. 175]. Finally, a fourth president related, "When I moved here, I thought I had gotten all I needed to know about the status of the institution. However, I found out later that the trustees were deeply concerned about the finances. They decided not to share that with me for fear that I would back out" [104, p. 176].

West penned a thoughtful essay on six areas of concern for presidential candidates: the board of trustees, the faculty and curriculum, the student body, staff, resources, and constituent relations. In regard to trustees, he stated:

The prospective president should see the contribution record of each individual trustee. Most boards tell a presidential candidate that they expect him or her to raise money — a lot of money — but how much will the trustees themselves pledge toward the needed amount? Unless they are prepared to put up a substantial amount themselves — between one fourth and one third — why should they expect the president to do so, and why should anyone want to seek money on their behalf [100, p. 11]?

He also said, “A presidential candidate should obtain a copy of the last audit and should go over it carefully, preferably with an accountant who is familiar with college fund accounting and who is not connected with the college” [100, p. 12]. West added:

Some of these questions may seem extremely blunt. Unless they are answered, however, the successful candidate may not be able to be a successful president. Moreover, unless the search committee is willing and able to supply satisfactory answers, its members may not understand their situation well enough to identify the person best qualified to meet its needs. Candidates should not worry about appearing too hard-nosed or demanding. If you are wanted, you are in the strongest position during the interview process that you will ever be in with the college. If you are not wanted, the quality of the answers that you receive to these questions will make that clear [100, p. 13].

Once the decision is made to accept a presidency, candidates commit themselves to care for the institution as if it were their own child, according to McIntosh:

[I]f one is deeply involved in the college and completely committed to its progress, fund-raising ceases to be a burden. Raising money to increase teaching salaries is especially rewarding since one's efforts in this area are fundamental to the excellence of education now, and in the future. And if a new building is absolutely necessary for the health of the college, one does not resent the necessity of raising money for it any more than a father resents earning money to build a new house for his family, or to send his son through college. Once accepted in its larger framework, the task becomes exciting, and any success truly satisfying [60, p. 22].

Other presidents have used less flattering analogies to describe the presidential fund-raising responsibility. For example, Tolley related how he came to terms with fund raising early in his career during a presidency at Allegheny College:

Given Allegheny's shaky financial status, I devoted much of my time to fund raising. For many years this was my most difficult task. I disliked it so much that it literally made me sick. One day, however, it dawned on me that “If you can't lick 'em, join 'em.”

“This is part of my job,” I thought. “It's a disagreeable job, but like washing dishes, making beds, or changing diapers, it needs to be done. Stop complaining about it. Stop getting sick about it. Just do it.” After I made

that decision, I took fund raising in my stride. It never made me sick again [99, p. 58].

Shuster offered a somewhat more optimistic view, suggesting that presidents must acquire or cultivate a taste for fund raising as in various other activities of life:

Despite the widespread fostering of public higher education, ours is by and large a free enterprise system, which means that the budget is never what it ought to be. Therefore the president is first of all expected to find money somewhere. This is one task he cannot hire anybody else to perform. It is an ornery business which nearly everybody finds extremely unpleasant at the outset. Here nothing helps as does a measure of success. The first check is like a first baby or a first published book. Indeed, I have come to feel that money-raising is like smoking: one's first experiments are sickening, but after a while the thing acquires a fascination quite its own. You have formed the habit. The difficulty is that no matter how much money a president extracts from people, it is never enough either in his own estimation or — what is vastly more oppressive — in that of his colleagues [91, pp. 30–31].

In another description by a former president, Wriston described fund raising as a balancing act that can only be learned through experience — hard experience:

The president who gives too little time to money raising will never have a balanced budget, a salary increase for the faculty, or well-maintained buildings and grounds. The one who pours too much of his time and energy into fund accumulation will lose touch with the faculty, the curriculum, the students — and even worse, with ideas. No man can write a prescription to tell another how much is too much, how little is not enough. The balance is the fruit of experience — hard experience [106, pp. 165–167].

Payton also explained that most academics “detest” fund-raising and often treat the fund-raising staff with “ill-concealed disdain” [73, p. 64]. Because the majority of campus CEOs advance through the academic ranks, this characterization is applicable to many presidents. Several examples of this were provided by Cook in his study of presidential fund raising. For instance, the chief development officer at a major public research university commented:

I think very few people warm naturally to being a fund raiser, particularly among people whose careers have been in the academic world. So I would say that most approach the task rather reluctantly, and what we have been doing in our business is to try to warm the presidents up by giving the presidents some easy fund-raising successes early on and building a sense of confidence that this is not such a hard job after all. But most presidents are not generally extroverted, outgoing, aggressive, sales-marketing type people. They are people who have spent their careers with the life of the mind, and I don't want to say that sales and marketing and the life of the mind are mutually exclusive, but there are some differences there [23, p. 461].

A second chief development officer in Cook's study also shared this viewpoint:

I think one of the strange things we do in academia is we take the best economist or physicist or history professor and make them president, and yet their forte and what got them noticed was their great teaching. So we take them out of their element and turn them into administrators and then fund raisers. It isn't necessarily all that logical. So you get some unevenness but you can't have a president that doesn't have academic credentials. That's the nature of the beast. So you hope the other's there. Sometimes it is and sometimes it isn't [23, p. 461].

College presidents, however, are not the only nonprofit executives who struggle with fund raising. In a national study of excellence in nonprofit organizations, Knauff, Berger, and Gray also found that "by a wide margin, the chief staff officers we surveyed considered fund-raising the most pressing challenge facing their organizations in the coming three to five years. Interestingly, these executives reported that building fund-raising skills was the area where they perceived the greatest need for personal development" [50, pp. 25-26].

The Presidential Fund-Raising Role

Fund raising requires team effort, and an institution's president is typically the central player on the fund-raising team. Using football as an analogy, ideally the chief development officer is the coach or player-coach, the president is the quarterback-athletic director, the offensive line is made up of the "heavy hitters" (trustees and other powerful volunteers) who can open holes (doors), the running backs are the front-line fund-raising staff, and the ends are the deans or department heads of the various academic units [23].

As quarterback, the president is the central player in the fund-raising offense and follows instructions from the head coach (chief development officer) or offensive coordinator (campaign director). At the same time, the president also functions as the athletic director who is responsible for many programs and coaches, of which football is but one. The athletic director may also be more attuned to the external environment than the coach and may have a more intimate relationship with the institution's leadership, top conference officials, or regulatory bodies such as the NCAA or NAIA. Therefore, what usually occurs in fund raising is a blending of the philosophies and strategies of the chief development officer, the president, and a small number of powerful volunteers (trustee and campaign chairmen) [23].

Fund raising is therefore rarely a 50-50 proposition. Many development programs have a dominant personality or a person with superior

skills and thus either the president, the chief development officer, or a powerful volunteer (trustee or campaign chairman) may be more or less involved in setting the overall guiding philosophy, strategy, and direction of the program depending on the unique institution, the unique personalities and abilities involved, time constraints, size and expertise of support staff, and other factors [23].

Moreover, presidents should focus their effort and attention in fund raising on two areas: (1) major gifts (although what is "major" varies from institution to institution, this generally refers to gifts of \$100,000 and above), and (2) administrative leadership (e.g., policy and strategy decisions, budget and staffing concerns, selection and/or evaluation of the chief development officer, strategic planning, selling a campaign to the trustees, being involved in the selection of a fund-raising consultant, helping to decide on the timing and goal for a campaign, recruiting volunteer campaign leaders, and articulating the institutional vision) [23].

It is not surprising, therefore, that fund-raising ability and experience have become increasingly valued presidential assets in recent years. According to Dorich, "Academic credentials and a clear understanding of how the academy works continue to be vital to aspiring presidents. But in today's uncertain times, many search committees also recognize the value of the fund-raising skills and leadership ability that come with an advancement background" [29, p. 6].

"When governing boards go hunting for presidents, it's often the candidates' fundraising, rather than academic, talents that catch the eye," added Rose [80, p. 19]. Anderson noted, "Nowadays, a president is often hired to ask for money" [1, p. 17]. And Wycliff stated, "For all academic presidents, the job more and more involves what many say is the least enjoyable activity of all: fund raising" [107, p. B7].

"Fundraising is not the only role, but it's a terribly important one in today's time," said Peggy Stock, president of Colby-Sawyer College, who estimated that she spends about 50% of her time on fund raising. "I don't know if any studies have been done but I would bet it would be very difficult, except at the very prestigious institutions, to raise money without having a president who is good at it," she added [92, pp. 28–29].

"As places look around for presidents, the premium on fund-raising ability is getting stronger and stronger," echoed George A. Brakeley III, president of Brakeley, John Price Jones Inc., a fund-raising consulting firm. "Fund raisers know the game," explained Steven Ast, a partner in Ast/Bryant, an executive search firm. "If they've been through a capital campaign, they don't have to reinvent the wheel. Every president has to do a capital campaign now, and hiring a development vice-president is an advantage" [64, p. A35].

According to Withers, in a capital campaign the president has at least six duties: (1) creating assertive board leadership in fund raising, (2) enunciating the master plan of the institution and obtaining a consensus on mission and goals, (3) using his or her time and appearances wisely, (4) meeting regularly with senior development staff to assess campaign strategy and analyze strengths and weaknesses, (5) spending considerable time in cultivating prospects for major gifts, and (6) insisting on continuity in development strategy rather than zigzagging from one approach to another [103].

Regarding the president's influence on the board, Patton had this to say:

At most colleges and universities, the president is a member of the board of trustees. The president's involvement in fund raising sets the example for other trustees. If that involvement is positive, enthusiastic, and firmly tied to institutional priorities, trustees are likely to follow suit. If the president is indifferent to development concerns or distant from fund-raising activities, board members are likely to place a lower value on their own participation [72, p. 53].

The president must also be an optimist and encourager during a campaign:

Every campaign, even the best, will have disappointments. The president is important also in helping the university through the difficult days. Most big campaigns last for five years or so. Inevitably, there will be slow periods when there is nothing much to report. It is then that the president has an additional responsibility: to keep the momentum going. The president may be disappointed, but must not show it. The president must encourage the dean who has just been turned down to try another donor on another day. The trustees' attention may drift away, and the president must invite it back. The professor whose new library wing is still only a dream must be encouraged to keep the faith. Students wondering why tuition is rising, despite all the money being raised, must be patiently educated about the complex realities of university financing [33, p. 76].

Capital campaigns often require huge commitments of time and energy from presidents and contribute to the growing stress level and rapid turnover rate associated with the position. According to G. T. Smith, "It is probably not an overstatement to suggest that no college or university can afford to have less than 60 percent of the chief executive's time dedicated to meaningful development of the institution's major constituencies" [93, p. 703].

McGoldrick added, "During noncampaign periods you should devote at least 20 percent of your time to development activities. During a campaign, that portion of your effort may need to reach 40 or 50 per-

cent" [59, p. 167]. Brown advised presidents to "accept the fact that successful fund raising will require as much as 50 percent of your time and energy at certain times of the year" [16, p. 151]. And Foote stated, "During the height of the campaign, the president will spend as much as a third of his or her time on the campaign itself or directly related responsibilities" [33, p. 76].

At the University of Michigan, former President James Duderstadt spent two thirds of his time generating resources from alumni, corporations, and the state and federal government. Former Cornell President Frank Rhodes spent four days a week wooing donors. Former Stanford President Donald Kennedy took a 3-month sabbatical from his other duties to kick off the Centennial campaign. James Holderman, former head of the University of South Carolina, spent 50% of his time raising money. And the late President James Zumberge at the University of Southern California spent 80% of his time on fund raising [82, 86, 107].

However, not all presidents are willing or able to devote this much time and energy to fund raising. According to Brecher, there are three basic types of "presidents who don't": (1) those who don't know how to raise funds and look to the chief development officer for leadership (the unable), (2) those who don't want to raise funds and assume the chief development officer will handle this unpleasant chore (the unwilling), and (3) those whose performance in fund raising is inadequate but who insist on being involved anyway (the willing but unable) [11, p. 24].

According to Del Martin, vice president of Alexander O'Neill Haas & Martin, Inc., a fund-raising consulting firm, reasons that a president may dislike asking for money include fear of rejection, lack of training, poor solicitation experience, and misplaced pride. "The non-asking president should be given proper training in how to ask and some easy experience to bolster confidence," she said [92, p. 29].

Schoenherr added that many presidents seek to avoid or minimize personal involvement in fund raising because of fear. According to him, "Presidents carry around a catalog of myths about fund-raising, and they are frightened by the thought of asking someone for a donation" [85, p. 46]. Schoenherr listed four fears: (1) the fear that others will see you as a beggar, a person with a tin cup looking for a handout, (2) the fear of being an intruder into the personal life of another, of invading their privacy, (3) the fear of rejection (probably the strongest fear), and (4) the fear of offending people by asking them for a contribution. He then explained:

As the chief executive officer of your institution, you are responsible for its financial stability. Very few things will bolster the spirit of your institution faster than dollars. You do not have the luxury the faculty have of dreaming

dreams and letting the other guy worry about how the bills are to be paid. The dreams you dream are always tied to the pocketbook [85, pp. 45–46].

Foote added, “Presidents will enjoy fund raising in direct proportion to their enjoyment of people because ultimately a capital campaign is as complex, as fascinating, as exasperating and disappointing, as people themselves” [33, p. 78].

Richard Berendzen, former president of American University, shared both the fascination and the exasperation of fund raising. He began by describing his growing relationship with billionaire Adnan Khashoggi, an international arms dealer and philanthropist. After persuading Khashoggi to join the university’s board of trustees, Berendzen introduced the need for a new campus facility — a sports and convocation center. Khashoggi ultimately funded \$5 million of the \$20 million cost of the 5,000-seat arena, which was named in his honor.

At the other end of the continuum, Berendzen was unusually candid in describing the frustration of working with donors who stall, change their minds, request special favors, and otherwise hinder rather than help progress:

Why are donors so cavalier? Many — maybe even most — mislead and deceive. They ask innumerable favors. Some state directly that they will contribute, citing the amount and the date. Then they do nothing. I remind them but they do not respond. I ask them to put it in writing, but they do not reply. I ask others to approach them, as my surrogates, but they, too, get no response. I ask again where the matter stands, but I am told, “Oh, I’m thinking about it.” And so it goes — for weeks, months, years. It is frustrating as hell! [5, p. 171].

Payton summarized the importance of fund raising to the presidency as follows:

For presidents of all sorts of institutions, fund raising is an inescapable part of life. In an increasing number of cases, fund-raising effectiveness is the key to the office — to both getting in and staying in. Intellectual and moral leadership seem to have yielded to the effective marshalling and management of resources. The career path to the presidency is now open to those who enter it from the development function. Like it or not (and I must say that in many respects I don’t like it), fund raising is now at the center of the president’s responsibilities [74, p. 33].

According to Kerr, another reason why more presidents have advancement/development backgrounds is that applicants from traditional sources (i.e., provosts, deans, and vice presidents for academic affairs) are more reluctant to be considered:

Conversations with individuals who have refused presidencies (sometimes repeatedly), with top academic officers on campuses (who constitute much

of the pool from which presidents are drawn), with professional search personnel, and with ex-presidents indicate that the attractiveness of the presidency has deteriorated.

Persons who have refused presidencies frequently note that the management of decline, which many campuses either have experienced or are likely to face, is not as attractive as the management of growth.

At least half of the academic officers note that the presidency has become a heavily external job with more emphasis on fund raising and on public relations, and with less contact with faculty and students and academic issues. Many individuals primarily interested in the academic side of campus life believe they will be better off as a provost or a dean of the faculty or a vice president of academic affairs than as a president [47, pp. 3-4].

In a 1990 interview Kerr explained that "very frequently the provost will make the same amount of money as the president." He also said that academic administrators have jobs which allow them "to be on campus and see their families regularly," in contrast to the frequent travel required of presidents [107, p. B7]. Maimon added, "College administrators, in contrast to their professional colleagues, are much more likely to miss their children's birthday parties. Is it any wonder that many aspire to full professorships as the pinnacle of academic success?" [15, p. 41]. According to Kerr, some academic administrators are also "able to maintain an active scholarly life," something very few presidents manage to do. Finally, Kerr stated that unlike presidents, deans, provosts, and vice presidents are "not directly on the firing line" [107, p. B7].

In addition, there are serious concerns about the impact fund raising has on presidential autonomy and independence. Former Columbia President Michael Sovern claimed that presidents today are speaking out on societal issues as much as ever, but that the "noise level" created by a media-intensive society has drowned out or reduced presidential voices to an inaudible level amid the din of numerous other credible (and incredible) voices in society [43, p. A5]. However, Sovern admitted in another interview the same year that due to the "burdens of the office," it is becoming "increasingly difficult" for presidents to get involved in off-campus issues [28, p. B7].

Sovern rejected the charge that preoccupation with fund raising is responsible for the alleged abdication of social leadership by presidents and said that he had used his office as a "bully pulpit" to speak out on apartheid and divestiture in South Africa, human rights violations, the Solidarity movement in Poland, and free-speech issues [43, p. A5].

However, fund raising is the most frequently cited presidential handicap, and many observers disagree with Sovern. Vartan Gregorian, president of Brown University, stated, "You're frightened to take a stand as an educator because you are afraid that the Federal or state authorities,

or your private benefactors, may retaliate against your institution by not giving money" [28, p. B7].

Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching, said, "The more dependent you are on the gifts and bequests of others, the more advantageous it is to not get caught up in larger debates that might be viewed as divisive and contentious" [82, p. 54]. He added:

The job has been powerfully diminished, and I think the nation is the loser. We need people who are able to interpret historically, ethically and socially the issues of the day. But because [presidents] are under such pressure financially, it becomes risky to be prophetic. There is a hazard in offending [32, p. 3D; 43, p. A4].

Similarly, Derek Bok, former Harvard head, commented, "Today, university leaders are largely silent, too heavily burdened with raising funds and administering their huge institutions. There is no one able to communicate a compelling vision of what we are trying to accomplish for our students" [68, p. A18].

However, F. J. Kelly explained that the proliferation of state higher education coordinating boards, national education associations, and university systems in the last 30 years has removed the need (and perhaps the opportunity) for individual presidents to serve as spokesmen on national issues [45]. Further, presidents of all ages have needed an abundant supply of courage and fortitude to resist the special interests of powerful constituencies or the mob mentality of popular opinion.

Finally, increased media attention and its attendant capability of magnifying the impact of any remark through a network of instantaneous global communication are certainly factors inhibiting presidential candor, as is a heightened social consciousness — with its attendant litigious and politically charged climate — regarding comments which focus or touch on race, gender, sexual orientation, religious orientation, age, health, and other differences among individuals and groups of individuals.

Conclusion

During the last 20 years — or the Era of Uncertainty — the level of intensity, the sense of urgency, and the technical sophistication associated with fund raising dramatically increased on the nation's campuses and among nonprofits in general. Fund raising became a definite expectation for every college president, and campaigns became an ongoing way of life on the nation's campuses. Public colleges and universities began development programs *en masse* and launched aggressive, bold

campaigns to rival their private counterparts, thus violating a tacit, long-standing agreement.

During the past 20 years, the vast majority of both public and private institutions increased their commitment to private fund raising and enlarged their development staffs and budgets. Nevertheless, academic chief executives must devote a significant portion of their time to fund-raising activities. However, many presidents have difficulty adjusting to their roles as fund raisers. Fund raising and financial affairs in general are among the high profile duties/endeavors of a president and among the skills/attributes most prized by trustees as well as by some faculty and alumni; these issues are also widely reported by the media. Due to the increasing complexity of fund raising, presidents and other university personnel must have greater familiarity with tax laws, planned giving, estate planning, and other technical aspects of philanthropy.

Fund-raising considerations play a major part in the presidential selection process as well as the length of time incumbents remain in office. There has been a slight trend in recent years toward hiring presidents with a background in development or business, although promotion from within academic ranks is still the norm. Ideally, presidents should spend their time and effort in fund raising on the cultivation and solicitation of major gifts and in providing administrative leadership. Presidents should also emphasize a team approach to fund raising in which they play the dual roles of quarterback and athletic director.

As a result of these trends, considerably more critical attention and media coverage has been given to the role of college and university presidents in fund raising. The strident tones and sounds of alarm that characterize this writing certainly have some basis in fact and indicate major shifts in the economy, in higher education, and in the roles of presidents and chief development officers. However, the deeper truth is that leadership has been a scarce commodity in great demand in every era and that presidents have always been called upon to provide this leadership and to preserve intact or move forward their institutions in the midst of difficult circumstances and formidable challenges.

Academic presidents of each era have faced different circumstances and challenges than their predecessors, but two constants that have spanned the years have been the need for leadership and the need for resources. May the presidents of today and tomorrow find the courage, strength, and wisdom to provide both in sufficient amounts.

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No Laughing Matter

Boundaries of Gender-Based Humour in the Classroom

As personified in jokers, fools, and clowns, humour is an integral part of human history [44]. Humour can lighten what might otherwise be dull, tense, or tedious situations. Common definitions of humour emphasize “amusement” and “laughter,” implying some form of benign diversion. But recent research suggests that jokes are not “events” that are funny — or harmful — as such. Rather, joking entails a dynamic process where the characteristics of the joke teller and the audience interact with the embedded meaning of the joke. It is the interactions among these factors that determine whether efforts to be funny are acceptable or not [26, 40, 42]. The present study employs a power-based approach to examine how situational factors affect the degree of acceptability of gender-based humour in classroom settings.

Theories about the Role of Humor

Probably the best-known proponent of the psychoanalytic views about humour is Freud [14]. In *Jokes and Their Relation to the Unconscious*, Freud argues for the cathartic effect of joking, especially in areas of unconscious turmoil about human sexuality and aggression. Humour is seen as a safe outlet that prevents the teller from expressing his hostilities in more destructive ways. Such a release of unconscious steam is also expected to vicariously cleanse the audience [9, 10, 32]. In other words, humour is seen as a mechanism to distance oneself from

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the potential disorganizations of the social world and their incumbent anxieties.

More recently, Dundes [10] applied the psychoanalytic assertions to "sick joke cycles." He claims that sick jokes ranging from "dead babies," to "Auschwitz jokes," serve as coping mechanisms to deal with bothersome issues such as sexuality, racial tensions, violence, and guilt. More relevant to the current study, Dundes [10] claims that "sheep and blond joke cycles" (which center on degradation of women), reflect men's struggle to deal with their anxiety about the changing role of women. Wilson [44] also recognizes the anxiety reduction aspect of jokes through displacement, projection, and rationalization of taboo impulses. The common denominator in all these assertions is the psychological (and indirectly, social cleansing) function of humour.

The conventional sociological approach to humour builds on the concept of role distance [8]. In this perspective, humour is a transposition of frameworks, a brief switching from the serious to the unserious or playful realm [1, 13, 18]. Such switchings are meant to provide license, so that humour does not officially "count" [11]. As jocular departures from the official line of interactions, puns, witticisms, jokes, sarcasm, and mimicry produce amusement in an audience while allowing speakers to address topics that are taboo. In this latter sense, the conventional sociological perspective overlaps with the psychoanalytic orientation in finding humour functional. Thus it can reduce stress (as in the morbid humour of police and surgeons) and lubricate social interaction through self-mockery and the development of "joking relationships" [41].

Whereas the conventional sociological perspective recognizes that certain switchings in the name of humour can be inappropriate, power-based approaches reject unqualified functionality arguments [31, 38, 46]. Power imbalances under the auspices of humour are seen as reinforcing old belief systems, blocking social change, and preserving inequality. In the past decade or so, minorities and feminists have pointedly challenged the prevailing views about humour. Increasingly, gender-based humour is seen as a manifestation of power imbalances between men and women, which in turn helps to solidify and perpetuate that power disparity. Feminists argue that men define reality for both men and women in work and in leisure. Men also take measures to legitimize the reality they themselves have constructed and demand conformity from those who are disadvantaged by male standards [12, 24, 36]. Cloaked as "having a good time," humour is among the tools used to demean, degrade, and oppress women [17]. In Mackie's words "humour participates in the typification of males and females, the dissemination of stereotypes, the celebration of boys and men and the devalua-

tion of girls and women" [23, p.13]. The power-differential approach also highlights the catch-twenty-two position of women. Often they are left to choose between the equally undesirable alternatives of laughing at jokes at their expense to appear to have a "sense of humour," or refusing to laugh and being deemed humourless [43].

Power, of course, is a multidimensional concept that must be concretely operationalized in different contexts [26, 40, 42]. Situationally varying dimensions of power include the sex of the joke teller and the audience, the sex composition of groups, and the sex of the target at whose expense the joke unfolds [45, chap. 6]. Status differences between the joke teller and his/her audience and attendant feelings of trust or threat are also expected to be critical factors. To test predictions that follow from this approach, the present study compares the responses of male and female faculty and students to gender-based jokes in the classroom.

Literature Review on Boundaries of Acceptability

Research indicates that joke telling is hierarchical, reflecting "codes of privilege" that allow some to use humour while inhibiting others from doing so [2, 45, pp. 269-273]. Men tell more jokes, tell them more frequently, and prefer more gender-based jokes than women [10, 47]. Men also engage in more crude types of humour [10, 15], while women use safer and more indirect types such as self-deprecation [20, 26, 45]. In work settings, for example, high-ranking men may produce exaggerated displays of humour with sexual connotations in the presence of token women [19], while women are hampered in their reactions [8, 28].

Recent research on how people respond to gender-based humour provides support for the power-differential approach. Fundamental to this approach is the claim that women who are status disadvantaged in male-dominated societies, should be less tolerant of female-disparaging jokes. A number of studies report results consistent with this claim [4, 7, 22, 35]. However, the findings are not unequivocal, because some studies find no sex differences in the appreciation of sexist humour [6, 16]. Instead, both Henkin and Fish [16] and Moore, Griffiths, and Payne [27] claim that the profeminist attitudes of men and women determine the level of displeasure with sexist humour. In other words, these studies suggest that gender awareness and sensitivity rather than biological sex differentiates the responses.

Place of Humor in a Classroom Setting

Humour may serve as a functional tool for educators who want to give an "affable" impression of themselves, lighten up a topic, or pro-

long the attention span of their students' interest and participation [5, 45]. However, the power dimension cautions us against the unchecked use of humour, because classrooms are unegalitarian situations [21]. Power differentials between students and instructors can render the former vulnerable [30]. Gender typically accentuates these power differences [25, 37]. For example, professors are much more likely to be men than women, while the latter are also congregated in the lower rungs [29]. These power differentials regulate how male and female instructors use humour. Male instructors use humour (sometimes lewd humour) to entertain and enliven their classes. Female instructors generally avoid using humour, or they use it reactively to regain control of classroom disruptions [39, pp. 56–57].

The large body of research on how status characteristics (i.e., sex, race, occupation) structure group hierarchies clearly shows that consequences of power imbalances are more than abstractions [33, 34]. Hence, perceptions of the joking environment arising from gender and status disadvantages must be articulated within other situated characteristics.

Given the layers of power differentiation in a mixed-sex classroom, the acceptability of gender-based humour fluctuates according to the initiator, his/her relational power within the institution as well as to the audience, and the target of the joke. Judgments about who benefits from the joke will also be coloured by the feminist versus patriarchal belief systems of the audience. Jokes that aggressively target women in a situation that renders multiple and consistent status distinctions relevant are most likely to create a sense of intimidation. The dismay may be highest among those who are aware of the subtle workings of male hegemony [16, 27].

Sociopolitical timing may also be a critical determinant of reactions to gendered humour. For example, televised coverage of the Anita Hill/Clarence Thomas hearings of the early 1990s created a heightened awareness of sexual harassment. As a result, in the past few years women's groups and organizations have successfully lobbied for university regulations to deal with sexual and gender harassment, including offensive humour. Because the boundaries of acceptable humour are in flux, there are few clear norms to guide individual behaviour. In case of erroneous judgments, instructors will have to defend their choice on what may have been "truisms" of a bygone era. While some students find gender-based humour unpalatable, others may continue condoning its use. Gender will permeate these judgments [3, 21, 37]. Thus, in the changing milieu of gender relations we expect that more contemporary data will reflect greater awareness and sensitivity to sexist humour by a growing number of women and *some* men.

The present study examines how students and faculty rate the acceptability of 16 gender-based jokes. The jokes were selected to vary in their target (ambiguous, males, females) in order to explore the differential impact of status and gender on reactions to humour. Given the preceding discussion, we predict that

- H¹- Men will have a higher level of tolerance and a wider boundary of acceptability for gender-based jokes than women.
- H²- The difference between men's and women's level of tolerance and boundaries of acceptability will be the greatest in jokes that target women.

The present study also investigates the effects of threat versus trust in joking situations. We contend that the level of trust, which will be highest among status equals, will mediate the cognitive processing and emotional response to the content of the jokes. Hence respondents were asked to rate the acceptability of the stimulus jokes in the classroom, at a student or faculty party, and at a family party. Due to status differences in the classroom, we predict that:

- H³- There will be a narrower boundary of acceptability for gender-based jokes in the classroom than in social or family gatherings.

Methods

Design and Variables

In the present study gender-based humour is conceptualized as 16 stimulus jokes.¹ In a 2x2 design, sex (male/female) and status of respondents (faculty/students) are the independent variables. The dependent variables are the level of tolerance and the boundaries of acceptability.² We operationally defined level of tolerance as the aggregate ratings of six semantic differential (SD) items. The items were funny, stereotypical, derogatory, offensive, pornographic, hostile, and their antonyms or opposites. Boundaries of acceptability were operationally defined as the ratings on three items concerning acceptability of the joke in a classroom, in a social gathering (faculty or student party), and a family party. Each item was on a seven-point scale with clearly identified end points. In order to control for response bias, half of the items were randomly presented from negative to positive and the other half reversed. For in-depth analyses, we cluster our tolerance and acceptability variables according to the joke target (ambiguous, men, or women).

Samples and Procedures

Respondents were 377 students and 83 faculty members from the University of Toronto. For reasons of cost, convenience, and availabil-

ity, different sampling strategies were used to obtain the two groups. Questionnaires were distributed to students attending four introductory classes (three in sociology and one in economics). The selection of these courses was due to convenience and the cooperation of their respective instructors. More importantly, these courses are the largest introductory courses at the College and thus serve a large proportion of incoming students who eventually branch out into various disciplines. Thus, introductory sociology and economics courses provide a better mix of the student population at the university than can be found at any other specialization area.

A brief covering letter explained that the study was investigating gender-based humour and that participation was voluntary and anonymous. Students were allowed 30 minutes to complete the questionnaire. The response rate was over 95%.

Faculty respondents were obtained through a systematic sampling of the 1993 University of Toronto Faculty Directory. Questionnaires with return labels were sent to 368 faculty members through campus mail. Four questionnaires were returned due to the retirement or death of the addressee. The overall response rate was 24%, an outcome which will be discussed later as one the indicators of "resistance" to the study.

Questionnaire

Respondents received a package consisting of 16 randomly ordered stimulus-jokes and 16 rating scales corresponding to each joke. The jokes were selected from several thousand reviewed from humour books as well as jokes circulating on several "Electronic Bulletin Boards." Several criteria were used in the selection. First, all dealt with gender. Second, jokes ranged in their target, either butting males (5), females (6), or with an ambiguous target (5). Third, the jokes ranged in their "crudeness"; however, because those with graphic descriptions or profane language were excluded, the chosen jokes represent a very contained sample of what circulates in the "humour market."

Results

An item-by-item correlation analyses (Pearsons) of the six SD ratings of tolerance and the three measures of boundaries of acceptability revealed highly significant results (p 's < 0.001). Correlational analyses of the aggregated tolerance and acceptability responses for all 16 jokes were also highly significant (p 's < 0.001). Given this overwhelming consistency, the ensuing analysis employs scaled results for tolerance and acceptability ratings. Moreover, we report separate analyses for jokes that are neutral, target men, or target women.

Age variable. Finally, we must address the issues related to age. Our study attempts to decipher the effects of status conceptualized as faculty versus students. However, there is a natural overlap between our status variable and age, because most (but not all) students are younger than most (but not all) faculty. First, and foremost, then, we must demonstrate that status effects are indeed significant, and separate from those due to age. We will do this before we discuss our results in detail. Although we collected ordinal level data about age cohorts of our respondents (four categories), the very small frequency of female faculty respondents prevented us from analyzing the main and interactive effects of age (2x2x4 design) in addition to those that arise from the power model (2x2 gender and status). However, dissociating the effects of age from the status variable of concern is a must if we are to validly test our hypothesis.

For this reason, we first conducted a multiple regression analysis using sex (female = 1), status (student = 1), and age by collapsing the latter into two categories (under 35 = 1 versus 35 and over) as regressors. The dependent variables were tolerance (analyzed separately for neutral jokes, jokes that target males or females), and acceptability (again, analyzed separately for the three targets).

In terms of the tolerance ratings, the age variable's contribution to the explanation of the variation was nonsignificant, regardless of the joke target. In contrast, the variation explained by status was significant in jokes that targeted both males ($p < 0.009$) and females ($p < 0.001$). The variation explained by models that contained all three variables (gender/status/age, $r^2 = 0.016$ for neutral, 0.038 for male-target, 0.111 for female target, probabilities < 0.065 , < 0.001 , < 0.001 respectively) were almost identical to the models that contained only the two variables of interest (gender/status, $r^2 = 0.013$ for neutral, $r^2 = 0.038$ for male-target, $r^2 = 0.111$ for female target, probabilities < 0.048 , < 0.001 , < 0.001 , respectively).

The findings for the acceptability ratings are even more clear. A multiple regression analysis of gender/status/age on the acceptability of neutral, male, or female targeting jokes showed substantial predictive effects of status ($p < 0.001$ regardless of the target), but absolutely none due to the age variable. The variation explained by models that contained all three variables (gender/status/age, $r^2 = 0.090$ for neutral, $r^2 = 0.150$ for male target, $r^2 = 0.190$ for female target, probabilities < 0.001 in all cases) were identical to the models that contained only the two variables of interest (gender/status, $r^2 = 0.090$ for neutral, 0.149 for male-target, 0.190 for female target, probabilities < 0.001 in both).

Indeed, these findings inform us that although age and status may be

highly correlated in real life situations, their role in humour settings are substantially different. For testing our power model, we can legitimately disregard age and turn to the analysis of the relevant effects of status and gender.

Table 1 reports the mean tolerance scores for each of the 16 jokes, with smaller means representing greater tolerance. The means range from $X = 3.02$ (Joke 15, ambiguous) to $X = 4.51$ (Joke 4, female target). Examination of the ANOVA results for each joke reveals significant gender effects on nine of the 16 jokes ($p < 0.040$ to $p < 0.001$). Consistent with H^1 , all of the nine significant effects are the result of males being more tolerant of the jokes than women. In addition, 7 jokes show significant effects of status ($p < 0.032$ to $p < 0.001$). In all these cases, student ratings are more tolerant than those of the faculty. Nonetheless, interpretation of the main effects must be moderated by the highly significant interactions of gender and status obtained on 8 of the jokes ($p < 0.046$ to $p < 0.001$). All these interactions are due to the fact that whereas male students are the most tolerant of all groups, female faculty are the least tolerant. We will examine the nature of these interactions more closely in Table 2, which gives mean tolerance scores for gender and status for each target cluster (ambiguous/men/women).

Once again, the results in Table 2 strongly support H^1 , since significant main effects are found for gender regardless of the joke target ($p <$

TABLE 1
Mean Tolerance for Jokes by Gender, Status, and Their Interactions

Jokes and Targets		Mean ^a Tolerance	Gender (G)	Status (S)	(G*S)
1	Ambiguous	3.43	—	0.002	—
2	Male	3.91	0.001	—	0.004
3	Female	3.63	—	0.001	0.001
4	Female	4.51	0.001	—	0.006
5	Male	4.19	—	—	—
6	Female	3.65	0.001	0.001	0.001
7	Male	3.49	—	0.032	0.046
8	Male	3.10	—	0.001	—
9	Ambiguous	3.25	0.010	—	—
10	Ambiguous	3.89	—	—	—
11	Female	3.96	0.001	—	0.010
12	Male	3.87	0.001	—	—
13	Ambiguous	3.03	0.001	—	—
14	Female	3.39	0.040	0.004	0.007
15	Ambiguous	3.02	—	—	—
16	Female	4.29	0.003	0.001	0.001

^aSmaller means signify greater tolerance

TABLE 2

Overall Tolerance and Acceptance of Joke Clusters that are Ambiguous or Target Men/Women by Gender, Status and Their Interactions

Target	Tolerance Means ^a by Gender, Status				Probabilities		
	Overall		Faculty	Student	Gender (G)	Status (S)	G*S
Ambiguous	3.34	Men	3.21	3.20	0.014	—	—
		Women	3.45	3.43			
Men	3.71	Men	3.73	3.44	0.003	—	0.007
		Women	4.41	3.79			
Women	3.91	Men	4.11	3.36	0.001	0.003	0.001
		Women	4.87	4.04			

*Smaller means signify greater tolerance

0.014, $p < 0.003$, $p < 0.001$, respectively for ambiguous/men/women). But beyond the consistent gender effect, the pattern of results differ by whom the joke targets. Ambiguous jokes yield no status effects or interactions.

Within each of the target categories of men or women, there are clear interaction effects ($p < 0.007$, $p < 0.001$, respectively). These interactions arise from the fact that male students are the most tolerant of all groups ($X = 3.44$ and $X = 3.36$ for targeting men and women), while female faculty are the least tolerant ($X = 4.41$ and $X = 4.87$ in that order). Male faculty and female students fall between the extremes, with means closely corresponding with one another. The main effect of status is found only in the joke cluster that targets women ($p < 0.003$) where students are more tolerant than faculty.

Although target of the jokes is not an independent variable in Table 2, it is interesting to note that the ambiguous joke cluster engenders more overall tolerance ($X = 3.34$) than jokes targeting men ($X = 3.71$) or women ($X = 3.91$). Comparison of the two-way cell means across the three joke targets further elucidate the subtle variations in reactions to jokes. For example, the means for male students are relatively stable across all three targets (maximum spread 0.22). But female students (spread 0.61) and male and female faculty (spreads of 0.90 and 1.42, respectively) appear to differentiate by the target. Stated differently, the last three groups show less tolerance for male-directed jokes than ambiguous ones, and the least tolerance for female-directed jokes. Taken together, these results provide partial support for H². Jokes that specifically target women indeed produce gender-based differences, but the effect is substantially due to the interaction with status (extremes of tolerance by male students and intolerance by female faculty).

The means of overall acceptability (the aggregate of acceptability in

classroom, social gatherings and family parties) are given in Table 3. These results diverge quite sharply from the tolerance scores given in Table 1. Gender effects are found for only 2 of the 16 jokes, where women rate the jokes as less acceptable than men. The sparse effects give very little support to the gender expectations in H¹. In contrast to the scant gender effects, 15 of 16 jokes show highly significant effects of status. In all cases, students find the jokes more acceptable than faculty ($p < 0.005$ to $p < 0.001$). More importantly, there are 14 significant gender and status interactions on these ratings ($p < 0.045$ to $p < 0.001$). Interactions are once again due to the extreme and opposite ratings of female faculty and male students. Male faculty's and female student's acceptability ratings fall in the middle (in that order). The presence of these consistent and strong interactions attest to the fact that status alone cannot account for all the variation in the acceptability ratings.

The nature of the main effects and interactions are shown in more detail in Table 4, in which acceptability in the classroom, social gatherings, and family parties are analyzed separately. As in Table 2, mean acceptability scores are given for gender and status, based on joke target clusters.

The most striking result of Table 4 is the absence of main effects for gender. Moreover, there is an identical pattern of results obtained for acceptability in the classroom and at social gatherings. In these two settings, there are highly significant status effects ($p < 0.001$ in all) as well

TABLE 3
Mean Acceptance of Jokes by Gender, Status, and their Interactions

Jokes & Targets	Mean ^a Acceptance	Gender (G)	Status (S)	(G*S)
1 Ambiguous	3.04	—	0.001	0.044
2 Male	4.24	0.001	0.001	0.001
3 Female	2.96	—	0.001	0.008
4 Female	4.58	—	0.001	0.001
5 Male	4.58	—	0.001	0.001
6 Female	4.58	—	0.001	0.006
7 Male	4.14	—	0.001	0.002
8 Male	2.66	0.002	0.001	—
9 Ambiguous	3.78	—	0.001	0.045
10 Ambiguous	4.45	—	0.005	—
11 Female	4.35	—	0.001	0.001
12 Male	3.84	—	0.001	0.044
13 Ambiguous	2.49	—	—	0.051
14 Female	3.31	—	0.001	0.002
15 Ambiguous	3.38	—	0.001	0.024
16 Female	4.62	—	0.001	0.001

^aSmaller means signify greater acceptability

TABLE 4

Acceptance of Jokes with Various Targets in the Classroom, Social and Family Parties by Gender, Status and their Interactions

Target	Means ^a for Acceptance in Classroom				Probabilities		
	Overall		Faculty	Student	Gender (G)	Status (S)	G*S
Ambiguous	3.69	Men	5.14	2.98	—	0.001	0.001
		Women	5.58	3.54			
Men	4.36	Men	5.83	3.52	—	0.001	0.001
		Women	6/51	4.23			
Women	4.34	Men	5.97	3.39	—	0.001	0.001
		Women	6.70	4.22			

Target	Means ^a for Acceptance at Social Party				Probabilities		
	Overall		Faculty	Student	Gender (G)	Status (S)	G*S
Ambiguous	2.72	Men	3.73	2.26	—	0.001	0.012
		Women	3.30	2.65			
Men	2.89	Men	4.26	2.24	—	0.001	0.003
		Women	4.36	2.76			
Women	3.09	Men	4.60	2.21	—	0.001	0.001
		Women	4.92	2.99			

Target	Means ^a for Acceptance at Family Party				Probabilities		
	Overall		Faculty	Student	Gender (G)	Status (S)	G*S
Ambiguous	3.88	Men	3.90	3.69	—	—	—
		Women	3.74	3.96			
Men	4.43	Men	4.67	4.27	—	—	—
		Women	4.77	4.47			
Women	4.35	Men	4.66	3.93	—	0.015	0.024
		Women	5.01	4.43			

^aSmaller means signify greater acceptability

as significant interactions ($p < 0.012$ to $p < 0.001$) regardless of the target. Faculty find the jokes less acceptable than students. Once again, and consistent with the reported results for tolerance (Table 2), all interactions are due to the polar reactions of male students and female faculty. However, unlike Table 2, Table 4 reveals an interesting difference in the means. Whereas the means for male faculty and female students "converged" in the case of tolerance (Table 2), male faculty consistently find these jokes less acceptable in the classroom and at social gatherings than do female students (mean comparisons for male faculty and female students for the classroom are $5.14 > 3.54$, $5.83 > 4.23$, $5.97 > 4.22$; and for social gatherings they are $3.73 > 2.65$, $4.26 > 2.76$, $4.60 > 2.99$; independent t -tests show $p < 0.010$ for all comparisons). In effect, male faculty seem to deem the jokes as tolerable as female students do, but certainly not as acceptable to tell.

Results obtained for family parties diverge from the pattern for class-

room and social gatherings (Table 4). There are no significant effects for jokes that are ambiguous or target men. Status and interaction effects are only found for the joke cluster that targets women. Taken together, these results do not support the acceptability expectations of H². However, despite the lack of main effects for gender, gender and status combine to restrict the acceptability boundaries for jokes that butt women.

The third hypothesis predicts that the boundaries of acceptability will be narrower in the classroom than in the other two situations. As discussed above, however, the patterning of the main and interaction effects are identical for the classroom and social gatherings and only differ for the family gatherings. On the surface, this observation is contrary to the expectations about the unique and nonegalitarian nature of the classroom. However, an analyses of the means among the three situations render a somewhat different picture. Indeed, subsidiary analyses reveal that, overall acceptance is greatest at social gatherings (all targets $X = 2.90$) and significantly lower in the classroom (all targets $X = 4.13$) and at family parties (all targets $X = 4.22$). In other words, the acceptability is equally narrow for classroom and family parties, but substantially more relaxed in social gatherings. This pattern is in line with the premise of H³ but not with its wording. It seems that age and parental status differences deem family parties as nonegalitarian as classrooms, especially for the students.³

Discussion and Conclusions

In face-to-face interactions, use and reception of humour depends on multiple situated complexities. No single study can adequately capture the rich permutations possible in such complex environments. Therefore, our study is a modest attempt to untangle power differentials in only two factors (gender and status), provide additional information on two others (age and disciplinary affiliation), leaving many relevant others for future exploration.

Before we discuss our findings in more detail, a caution about using students and faculty from a single university is also in order. The University of Toronto is the largest university in Canada, drawing tens of thousands of students from within the country, and some from abroad. Because it is heavily state sponsored, it is accessible to students from various backgrounds. These characteristics make it similar to most other Canadian universities, but they may set it apart from some of its private U.S. counterparts with a more homogeneous student population. All these aspects, including the classes from which we sampled, need to

be carefully weighed in terms of the generalizability of our findings. Nevertheless, the power dimensions that constitute the focus of this article, namely that of status and gender, are entrenched aspects of all higher education. Therefore, there are insights to be gained from the present findings.

Our findings underscore the situated complexities in people's judgments of humour. Tolerance ratings consistently support H¹ and indicate that regardless of the target, women are more wary of humour than men. However, acceptability ratings provide very marginal support for direct gender differences predicted in H¹. Although these divergent outcomes may seem somewhat puzzling, close examination of the interactions provide at least a partial explanation for them. For both dependent variables the interactions consistently show that female faculty are the most sensitive to the demeaning possibilities of humour, whereas male students seem almost oblivious of these issues. Our findings, then, are variations of Smith, Morrison, and Wolf's [37] assertions about "college as a gendered experience." Variations, are also found in the responses of male faculty and female students. In the case of tolerance, the two groups converge. But in the measures of acceptance in the classroom and at social gatherings, the responses of male faculty approach those of female faculty, whereas female students find the jokes relatively more acceptable to tell. In both the acceptability and tolerance ratings, male students show the most lax boundaries. These findings are in line with Smith, Morrison, and Wolf's [37, p. 720] conclusion that although men's and women's development in sociopolitical issues are in the same direction, "men end where the women begin, whereas the women continue to move in the direction of socially conscious views."

Gender and status interactions also help explain the support, albeit weak, found for H². We had expected that male-female differences would be greatest for jokes that target females. Though the average difference between female faculty and male students was invariable in the anticipated direction, male faculty were somewhat more sensitive to female-targeted jokes and attenuated the overall gender differences that are clearly apparent in the responses of their younger male counterparts.

The findings for H³, which predicted that there would be a narrower boundary of acceptance for classroom humour than for jokes told at social or family gatherings, also reveal the importance of situational complexities. Within target categories, family affairs produced fewer (and weaker) differences than did the other two situations. Overall, it was more acceptable to tell jokes at social gatherings than in either the classroom or at family affairs.

In terms of the analyses of the means across the target categories, we indeed found that the status equality in social gatherings produced the most relaxed acceptance ratings. The mean ratings of the classroom and family parties were similar, and both significantly differed from the social gatherings. In the family party case we may have underestimated the importance of a different situational variable. Though we expected family interactions to be less influenced by gender considerations, we failed to realize how much student joking might be constrained by the presence of their parents! It is also interesting to note that this is the only case where male student ratings are not systematically different from female students ratings (Table 4).

The present findings clearly challenge the conventional view of humour as brief and functional "switchings" to the playful realm. This is especially apparent in the responses of female faculty, the group that one would expect to be aware and most sensitive to gender issues [25]. At this point, an aspect of the study which escapes detection in quantitative analyses also needs to be addressed. In our combined research efforts, which span three decades, we have never experienced as much covert and overt resistance to our work as we saw in this study. The nature of men's and women's resistance was different, but it came exclusively from the faculty respondents. Several male faculty used strong words to question the relevance of this study. Specifically, six "anonymous" respondents chose to call sociology, the study, and the researchers (not necessarily in that order) "stupid" (and an assortment of other names), erroneously inferring that our goal was to develop a list of gender jokes to be used in the classroom. At least three others criticized the study for using "American" humour (as opposed to universal?). What is noteworthy is that, except for the cover sheet, these male faculty returned incomplete questionnaires.

Three female faculty who were critical of this study did not respond either. However, they called, gave their names, and asked for additional information, including the background of the principal researcher and whether permission was secured from the ethics review committee. They also requested a copy of the final article. Even the status of women officer of the university was alerted to the study, and she asked for information on its progress.⁴ The unifying concern for these women was that the results, regardless of what they showed, could be used to justify sexist humour under the guise of "free speech." What is equally telling is the fact that five female faculty believed that all stimulus jokes targeted women, despite the fact that only 6 of the 16 did so.

Although faculty respondents were systematically selected, the response rate was very low (24%). Moreover, our aforementioned experi-

ences suggest the possibility of nonrandom response patterns for male and female faculty. One possibility is that female faculty who were the most concerned about sexist humour refused to respond. In contrast, male faculty who did respond may have been more representative of those who are sensitive to gender issues, as opposed to those who are unaware of the study's intent or implications. Given the extent and vehemence of the opposition we encountered, it is clear that gender-based humour is on trial in universities. A related implication is that this type of humour will be closely monitored by faculty (especially female faculty). The downside is that if gender-based humour is used (or even abused), students (especially male students) are not likely to react to it [37].

In a general sense, then, our results concur with earlier studies that found profeminist attitudes rather than biological sex to be the determining factor in responses to gender-based humour [16, 27]. If the sensitivity of female faculty is hardly surprising, the variable responses of male faculty leaves open some important questions. Because the latter take a middling position in tolerance but display low acceptance for the telling of jokes, one needs to be cautious about attributing their responses to profeminist attitudes. Our findings may simply mean that male faculty are now more aware of the possible consequences of telling jokes that are deemed inappropriate. Further research efforts aimed at differentiating between attitudinal effects and situated constraints (as in comparing joking and language use in all-male versus other situations) is critical for understanding the type and extent of inroads feminist beliefs are making.

Equally interesting questions arise for students. Because our respondents were all first-year students who completed questionnaires soon after the start of the term, they had little opportunity to be aware of — much less influenced by — the power-based approach to humour that has been institutionalized in various university contexts. Additional research on the somewhat anomalous responses of female students and the more fixed and less sensitive ratings of male students, especially as they mature in their university experience, is also worthwhile.

Notes

¹Jokes in the order presented to the respondents:

1. I never knew what happiness was until I got married. And by then it was too late.
2. Did you hear about the new Playboy Magazine for married men?
What about it?
The centrefold is the same every month.
3. Friend: My wife had her credit card stolen. Dagwood: That's terrible! Friend:
Not really — the thief's been spending less than she did.

4. Why is a cold beer better than a woman?
A beer won't accuse you of lying when you say you read *Penthouse* "just for the articles."
5. Why is a cucumber better than a man?
A cucumber never asks whether you've been seeing other cucumbers.
6. A man takes his date to a jeweller and asks to see their most expensive necklace. When he sees how much she likes it, he decides to purchase it. He asks the jeweller if a check is OK, and is told that since it is Saturday he will have to get the necklace on Monday after his check is cleared. He says fine and they leave. On Monday morning the man returns to the store and is confronted by the jeweller. "How dare you show your face here? There is not a cent in your bank account!"
"I know" says the man. "I just came back to thank you for the most wonderful weekend of my life."
7. She: I've heard plenty about your love making.
He: Oh, it's nothing.
She: That's what I heard.
8. A couple that has been married a few years decide to go out to eat every Thursday night. After a few weeks the husband notices that his wife always leaves her glasses at home Thursday night. He asks her, at one of their dinners, "Do you leave your glasses at home because you think you look better?"
"No," she replies, "because you look better."
9. XYZ tobacco has just introduced a smokeless cigarette. It's just the thing to have after safe sex.
10. I can't understand why more people aren't bisexual.
It would double your chances for a date on Saturday night.
11. President Taft and his wife go to visit a farm. The wife is taken to the barnyard where she happens to see the rooster in action. She then has a secret service agent bring a note to her husband, saying, "This morning, the rooster made love 9 times!"
The agent returned with her husband's reply: "Yes, but did the rooster do it 9 times with the same hen?"
12. A salesman returns from a long trip to his many accounts across the country. His wife confesses an infidelity.
"Who was it?" the salesman bellows. "It must have been my friend Tommy."
"No, it wasn't Tommy."
"Then was it my friend Alex?"
"No, not Alex."
"Then it must have been my friend Willie!"
"What's wrong with you?" the wife roars. "Don't you think I could have friends of my own!"
13. After a long and difficult argument, Lady Astor said, "Sir if you were my husband, I'd poison your coffee." Without missing a beat, Churchill replied, "If you were my wife, I'd drink it."
14. A wife was dying. She called her husband to her bed and said softly, "Gary, I must confess. I've been unfaithful."
Gary answered with even more softness, "I know. That's why I poisoned you."
15. The whole world dies and an endless line waits to get into heaven. Suddenly, there's a great roar from the front of the line. Someone in the back calls out. "Why are they cheering?" Somebody in the front yells back, "They're not counting adultery."
16. A married couple is making love. The husband asks his wife, "Did I hurt you, my dear?"
"Not at all," she answers. "Why do you ask?"
He replied, "Because I thought you moved."

²Upon the insightful recommendation of one of our anonymous reviewers, we also analyzed the effects of reported disciplinary affiliation (as social sciences versus non/social sciences) and status (faculty versus students). Of the six two-factor (2x2) ANOVA's carried out on our acceptability and tolerance measures of ambiguous, and male and female targeting joke clusters, only one showed a main effect of disciplinary affiliation. Respondents from social sciences (faculty and students) found male targeting jokes more acceptable than respondents from non-social sciences (means: 3.68 versus 3.98, $p = 0.02$). There were no other discipline effects or interactions with status. Because of the small numbers of female professors, we were not able simultaneously to analyze gender. However, the sparsity of the discipline effects shows that the disciplinary affiliation was not an important issue in our investigation, and thus the following discussion is solely centered on status and gender.

³A MANOVA was carried out to assess the effects of gender and status as well as their interactions on difference scores in the three levels of trust scenarios. MANOVA takes into account the intercorrelations among multiple dependent variables. We created difference scores between acceptability in (1) classroom versus social gathering, (2) classroom versus family party, and (3) social gathering versus family party ratings. MANOVA findings for both sex and status were significant ($df = 3.445$, $p < 0.030$ and $p < 0.001$). ANOVA's on each of the difference scores indicated that sex as well as status determined the situationality of the more reserved ratings in family parties and in the classroom as opposed to the social gatherings.

⁴An anonymous reviewer asked whether the ideological affiliation (i.e., feminism) of the researchers was known and whether such knowledge may explain the negative faculty responses we received. Indeed, the principal researcher of this study is known in her discipline (sociology) for her feminist research and teaching, whereas the co-author is not at all associated with feminist endeavours. However, first year students are not likely to know these specialization details. Moreover, the University of Toronto is the largest university in Canada, with more than a thousand faculty members dispersed across one main and two satellite campuses. It is unlikely that the systematically selected faculty members from across all disciplines in the three campuses would have known the ideological positions of the researchers, although some undoubtedly would have had this knowledge. Therefore, the respondents' knowledge about the researchers' ideological inclination is a possible confounding factor that needs to be more directly monitored in future studies.

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Review Essay

Higher Education under Fire: Politics, Economics, and the Crisis of the Humanities, edited by Michael Bérubé and Cary Nelson.
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American universities occupy a number of contradictory spaces in the public imagination: on one hand, a meritocratic tradition figures them as elite spaces occupied by a privileged few; on the other hand, a democratic ethos suggests that they are institutions to which all are entitled as citizens. At the same time, higher education is a public investment in the nation's interest as well as a commodity in the individual consumer's private interest for gaining credentials and mobility. Discourses of elitism and access for all, mobility and stratification, and public and private investment circulate in society, manifesting themselves in funding and policy decisions as well as in research practices, curricular decisions, and classroom pedagogy. Such "common sense" notions of the purposes of the university are not neutral. Nor are the extensive media reports of the "crises" afflicting higher education which feed into public views of the academy, such as reports of the "PC" wars, campus speech codes, canon debates, multiculturalism, affirmative action, racial intolerance, spiraling tuition costs, "star" professors who never enter classrooms, trivial research practices, and overcrowded lecture halls. The cumulative effect of this succession of hot topics has been to create an atmosphere of public unease regarding higher education.

It is precisely the effects of debates related to higher education that Michael Bérubé and Cary Nelson say form the impetus behind publication of *Higher Education under Fire*. The volume serves as a call to academics to engage in analysis and activism in order to reshape discourses surrounding higher education. The editors describe the book as a combination of the theoretical and the practical that stands as a corrective to misconceptions about university life and also as an "attempt to give academics some of the resources they will need to deal effectively with the future they face" (p. vii). The articles and conversations in this volume, born of a 1993 conference held at the University of Illi-

nois, situate themselves at the center of debates surrounding higher education and suggest ways in which faculty might intervene in the discourses that operate to shape higher education to redefine the image and future of the university. The volume includes conservative and "progressive" thinkers from the fields of education, political science, literature, sociology, communications, philosophy, history, cultural studies, and American studies.

Setting a tone for the volume, Bérubé and Nelson suggest in their introductory essay that the spate of "academy-bashing" is no longer a partisan phenomenon. The PC debates of the early 1990s have given way to more wide-reaching concerns: "Failing to convince a sufficient fraction of the American public that their children are being taught by radical Marxist multiculturalists, the university's critics are now trying to convince the American public that their tax dollars are being mis-spent on faculty whose only concerns are research and professional self-advancement" (p. 6). The shift from partisan critiques to a general failure to educate thus transcends political affiliations to become a concern for all Americans. Given such a climate of skepticism regarding higher education's fulfillment of its charge to educate the nation's youth, higher education loses popular credibility and becomes an easy target for budget cuts: "We do not claim a direct and immediate causal link between attacks on higher education and reduced state funding, but we do claim that these attacks have established a climate in which universities are vulnerable and in which public resistance to cuts is almost nonexistent. There is a consensus in many states that we are no longer a priority" (p. 7). Although the authors do not suggest an intentional scheme to weaken higher education, they do in fact distinctly correlate social discourses to the economic crisis.

If their reasoning is credible, which I think it is, it points to a kind of circular, self-perpetuating problematic: as universities have less credibility in society, funding decreases; as funding decreases and resources become scarce, the same issues that led to the decline in credibility become exacerbated. In a moment of budget cuts and rising tuition costs, they point out, faculty teaching loads are misunderstood, lecture halls become more crowded, the humanities are vulnerable to charges that their research is useless, faculty lines disappear, more faculty teach in a tenuous part-time status, and dwindling aid forces more students to attend college on a part-time basis. In such circumstances, faculty must become knowledgeable about the social and political contexts in which they work in order to "regain control of their own representation" (p. 27).

The seven articles in the first section, "Professors and Politics," take

up the concerns raised by Bérubé and Nelson. The themes that predominate include the purposes and image of the university, the fiscal crises and resulting budget cuts, and the role of faculty in defining the image of universities. A unique aspect of this volume is the "exchange" that follows the articles, based on transcriptions of discussions at the conference. The editors describe the exchange as "the only published record of a substantial dialogue between conservative and progressive academics about the future of higher education" (p. 163). The exchange achieves a particular effect: on the heels of reading essays that converge and diverge in their assumptions and prescriptions, the reader in a sense participates in dialogues in which disparate positions are engaged rather than merely presented or re-presented by "opponents" without challenge or question.

In the opening essay, Linda Ray Pratt suggests that with increased access to higher education and the expectation that universities produce functional skills, higher education depends increasingly on the vicissitudes of public and legislative moods. Rather than surrender to the dictates of a market economy and its terms, she argues, faculty should create new discourses in order to participate in defining universities. She offers three tactical examples of the ways in which, through the AAUP, faculty have worked to preserve funding and academic freedoms. However, although Pratt claims that faculty need to create new discourses rather than reacting to those in place, a reading of her cases reveals that they largely play into existing ideological frameworks rather than recasting the terms of the debates. Thus, while she describes successful interventions, they may be characterized as crisis management rather than crisis reconfiguration.

It is in the area of what is giving rise to the need for such interventions that the essays by Paul Lauter, Ernst Benjamin, Michael Apple, and Carol Stabile are illuminating. Lauter follows the thesis set forth by Bérubé and Nelson: behind what he calls a PC smoke screen, "conservatives have implemented a well-orchestrated and financed campaign to cut budgets, downsize universities, and thus sharply restrict access to higher education" (p. 73). However, he differs from Nelson and Bérubé by directly attributing a motive to the discourses conservatives have created, contending that the university has become a model industry in which a false binary of access versus quality, combined with budget cuts, has increased higher education's role in stratifying society. Stabile also begins with the debates over PC, arguing that they have exacerbated the split between academia and the rest of society. She describes media coverage as working in tandem with common sense attitudes of intellectual activity by "remov[ing] debate from an analysis of educa-

tion in crisis to a monologue about the silly and depoliticized nature of academic work" (p. 113). She blames the inability of leftist intellectuals to reframe the debates for failing to lessen the atmosphere of anti-intellectualism and the deregulatory spirit underlying funding cuts.

Benjamin shifts primary analysis from a social to an economic base, attributing the decline in higher education funding to the ongoing economic crisis in the public sector. He argues that the fiscal crisis perspective produces social and policy effects: "Education is most often viewed, erroneously, as a form of private consumption rather than as a public investment" (p. 54). His analysis reverses the conflict-leads-to-budget-cuts theory to suggest that "the fiscal crisis, in diminishing educational opportunity and quality, increases economic stratification as well as social and cultural conflict" (p. 64) in that diverse populations must compete for increasingly scarce resources. Although Michael Apple frames education not as public investment but as a project in critical literacy, his essay can be read as an extension of Benjamin's in its argument that conservatives in an advanced industrial economy have effectively vilified what is "public" and glorified the market economy, thus creating a climate in which privatization, self-interest, and competition are the reigning ethos, perpetuating unequal social relations.

The overlapping and competing analyses of the problems besetting higher education all have potential validity, though none of them fully addresses the challenges posed by Nelson and Bérubé's assertion that higher education's vulnerability is a product of more than purely partisan assaults. There is, at times, a gap between analysis and activism, with calls for activism often lacking an organic relation to the analysis offered or with interventions inadequately elaborated in terms of their potential long-term implications. Stabile does offer tangible directives that flow from her analysis, specifically the need for progressive academics to reframe debates such as the PC attacks in terms of larger issues beyond the academy (for example, not to fall into the trap of talking about alternative canons but about the interested nature of canon formation in general). Benjamin suggests that coalitions of faculty and students who work with unions and civic groups to fight for quality education and to restore belief in higher education as "an investment in economic development" (p. 71). Such suggestions, though offering something of a starting point, must be considered as momentary strategies to fend off one round of attacks or as a contribution to substantive dialogue about the purposes of higher education and thus shift public consciousness. For example, how can defense against PC attacks become part of a larger shift in dialogue? How can utilitarian talk of public economic investment be connected to social justice and equality?

The political, economic, and social analysis of the first section creates a point of departure for the second section, "Pedagogy and Populations," comprised of articles that shift between the broader discursive context and specific discussion of local politics and practices. Themes center around the clash of multicultural politics with meritocracy in a moment of economic decline and the implications of discourses of community and identity for universities. Each of the essays embodies and extends the salient themes of the first section: the purposes of the university and the role of faculty in a moment of interrelated crises of funding and legitimation.

Essays grounded in specific events and institutions include Troy Duster's welcome debunking of the D'Souza-inspired myths surrounding racial conflict at Berkeley, Gregory Jay and Gerald Graff's critique of oppositional pedagogies and their description of the enactment of Graff's "teach the conflicts" pedagogy, and Linda Brodkey's critique of college composition as gatekeeper of middle-class values in light of the much-publicized curricular conflict at the University of Texas. Concluding this section in a sort of mini-section on identity politics are four articles (by Todd Gitlin, Cameron McCarthy, Michael Dyson, and Jerry Watts), followed by a discussion, that offer perspectives on identity politics and its implications for "multicultural" practices on campus.

Several essays explore the connection of economic decline to groups' and individuals' sense of self in relation to others. In an elegant essay that connects classrooms to the socioeconomic sphere, Judith Frank describes "the pain intrinsic to *all* learning" (p. 269), theorizing not only the vulnerabilities and pain of traditionally marginalized groups as they enter institutions of higher learning but also the pain and anxieties suffered by members of dominant groups as they are faced with learning "how their privilege is created and perpetuated" (p. 268). Michael Warner's analysis of the refrain of "no special rights" links the homophobic compulsion not to acknowledge gay and lesbian existence to a clinging to power and privilege by traditionally hegemonic groups who are losing their dominant political and economic positions. In considering effects of "group rights" based on his experiences with college admissions at Berkeley, Duster suggests that affirmative action pleas not be made on behalf of redressing groups' historical grievances but for pragmatic reasons such as enriching student culture and improving students' marketability. Though his suggestion may have temporary efficacy, it lacks a long-term vision of creating a society in which multiculturalism is valued and "standards" takes on a variety of meanings. The specifics of each case suggest the intricate interweaving of economics and ideologies in the relations among groups in higher educa-

tion, and the need for local, temporary strategies in combination with more enduring, transformative discourses.

Although the articles and the sections of the book can be read independently, one of the chief strengths of this collection is the implicit and explicit dialogic mode across themes, a mode that challenges the reader to put his or her assumptions into play and to reflect on conflicting analyses and their implications for action. The shifts in focus and perspective in the theory, analysis, and tales of the specific emphasize the complicated nature of the dilemmas facing higher education. Such complication points to the impossibility of single solutions, a point made in Joan Scott's haunting essay, "The Rhetoric of Crisis in Higher Education," in which she cautions that skirmishes such as the cultural and canon wars are symptomatic of deeper problems, not to be mistaken as the sources of cause and solution. Given this warning, it appears that without substantial ideological shifts, symptoms and crises will continue to proliferate, with academics running from crisis to crisis in an attempt to control what damage they can, rather than participating in setting the tone for the conversations that define the roles of higher education in society. This text offers a useful starting point for those concerned with intervening in policy and practice.

Book Review

Assessing What Professors Do: An Introduction to Academic Performance Appraisal in Higher Education, by David A. Dilts, Lawrence J. Haber, and Donna Bailik. 112+ pp. Westport, CT: Greenwood Press, 1994. \$49.95

JAMES R. DAVIS, University of Denver

Assessing What Professors Do is an excellent reference for thinking clearly about how to evaluate teaching, research, and service and citizenship as elements of the faculty appraisal process used to determine retention, promotion, tenure, and annual merit increases in salary. Written by three economists, including one professor well-published in labor relations law, this book provides a dispassionate and systematic treatment of various methods and processes for measuring faculty performance. Every college or university library should have a copy, and those who make appraisal policy — faculty senators and academic administrators — and those who conduct appraisals — promotion and tenure committee members, department chairs, and deans — could profit from having a copy close at hand for frequent reference. In addition to valuable introductory chapters on the ethics of performance appraisal and key chapters on evaluating teaching, research, and service and citizenship, this slender volume contains in one place, in reduced type, copies of all of the most important statements of the American Association of University Professors (AAUP) that form the accumulated wisdom of that body on academic freedom and tenure policies. Although the authors appear to have four-year institutions in mind primarily, the approach to the subject is very broad and acknowledges diversity of policies and practices across institutional classification types, public and private status, and presence or absence of collective bargaining agreements.

An effective and fair appraisal system, the authors note, is essential not only for monitoring “the performance of individuals, it also provides a basis for judgments concerning the effectiveness of the total organization.” Although the procedures may be somewhat different for making decisions about retention, salary, promotion, and tenure, those judgments usually depend on nearly the same data, and the authors make a strong case for having clear, fair, and consistent procedures for gathering appraisal data. An ethical appraisal system rests on four foundations, each elaborated in detail: “Fair warning of what is expected, appropriate standards on which appraisal must occur, a fair and rational procedure within which appraisal occurs, and due process for appeal of adverse evaluations.” Faculty need to know what will be expected, and decisions about their performance need to be based on evidence.

What evidence? This is the difficult question, of course, and the most valuable chapters of this book explore the issues thoroughly, sorting through each

potential source of evidence, drawing in research literature where it exists, and weighing pros and cons. Teaching, for example, can be assessed through questionnaires administered to students, administrative and colleague appraisal, standardized testing, or various forms of external evaluation, each of which has its own merits and detractions. The chapter on appraisal of research contains provocative discussions of quantity versus quality, weighted indices for various types of writing, an assessment of the prestige of journals, and the value of citation counts. These topics are well researched, and the discussion is stimulating. Because less is written about service, the authors spend more time in this chapter on defining and making useful distinctions between service, citizenship, and administration and less time on how to measure service activities. They recognize that this is the least valued and least understood aspect of faculty performance, and their analyses are welcomed. The book concludes with chapters on the legal context of faculty performance assessment and performance appraisal in environments where there is collective bargaining.

What is missing? Although the authors are to be praised for having found as many research studies on appraisal as they did, sometimes they rely too heavily on journals in economics and miss some of the more general higher education literature, as, for example, the omission of Kenneth Feldman's numerous studies on student evaluations of teaching [12] and valuable reviews of this literature by Judith Aubrect [1, 2], William Cashin [6, 7, 8], and Robert Boice [3]. For my own taste, the discussion of learning theories (how to discover whether teaching results in learning) lacks depth [11]. The most important omission, however, is the failure to take into account the late Ernest Boyer's book, *Scholarship Reconsidered* [4], and the tremendous impact of the ideas expressed there for reconceptualizing research into the broader terms of the scholarship of discovery, synthesis, application, and teaching. Even if the authors had chosen to retain their more traditional scheme of teaching, research, and service, they need to acknowledge that after Boyer's work, the efforts by AAHE in shaping a national debate on faculty roles and rewards and the work of many of the professional associations in reexamining the meaning of scholarship, the world of faculty appraisal is no longer what it used to be. Thus, this is a valuable book for thinking through the traditional issues in a traditional way, a useful guide to what is probably still current practice in many institutions, but it provides little insight on developing the "appraisal system of the future." What would have made the book even stronger would have been more discussion of the changing legal context, given the authors' expertise, and of the wider context of appraisal in business, government, and not-for-profit organizations. It would be useful now to have a penetrating discussion of how the whole environment for appraisal may be changing as postsecondary institutions rethink their purposes and faculty redefine their roles. How do the ground rules change, for example, in an institution that abandons tenure or embraces Boyer's new conceptual framework for scholarship?

Those who study higher education will see this work as taking its place within the broader literature on faculty and as a useful companion to older classics such as John Centra's *Determining Faculty Effectiveness: Assessing Teaching, Research, and Service* [9] and Richard Miller's *Evaluating Faculty Performance and Evaluating Faculty for Promotion and Tenure* [13, 14]. The two most recent books in the field are John Centra's *Reflective Faculty Evalu-*

ation: *Enhancing Teaching and Determining Faculty Effectiveness* [10] and L. A. Braskamp and J. C. Ory's *Assessing Faculty Work: Enhancing Individual and Institutional Performance* [5]. The earlier work by Miller focuses on student evaluation of teaching and provides useful models of forms and surveys; and although the more recent work by Miller includes a chapter on scholarship and service, *Assessing What Professors Do* contains a more penetrating analysis of how one might undertake a traditional assessment of research productivity. On the other hand, the most comprehensive and balanced treatment of the whole range of topics subsumed under assessment of faculty work, including legal issues, is John Centra's most recent book, *Reflective Faculty Evaluation* [10]. The timing and communication may not have been right for the authors of *Assessing What Professors Do* to know more about Centra's work, but they might have found a better niche for their work had collaboration been possible. Centra's book is probably best for scholars of higher education and reflects the broadest awareness of the research in this field, but the treatment of ethical issues and the provision of a framework for thinking about assessment are valuable contributions of *Assessing What Professors Do*.

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The College Aid Quandary: Access, Quality, and the Federal Role,
by Lawrence Gladieux and Arthur Hauptman. Washington, D.C.:
The Brookings Institution and the College Board, 1995. 97 pp. \$10.95

MICHAEL MUMPER, Ohio University

In late 1994 the College Board and the Brookings Institution convened a conference attended by more than one hundred fifty of the nation's leading experts on college access and federal higher education policy. The conference was organized around a paper by Lawrence Gladieux and Arthur Hauptman titled, "Improving Public Policies to Help Students Pay for College," which addressed a series of fundamental questions about the future of the federal student aid effort. Gladieux and Hauptman have now revised their paper and summarized the reactions of the conferees in *The College Aid Quandary: Access, Quality, and the Federal Role*. This unusual book combines the best features of a thoughtful policy analysis with those of a carefully edited volume of conference proceedings. Few people know as much about federal college student aid as Gladieux and Hauptman. When they combine their efforts and add the insights of leading academics, policy makers, and practitioners to the mix, the result is an inside look at the complexities of student aid reform that is available nowhere else.

The core of the book is a discussion of three questions: (1) Is student aid the most appropriate vehicle for financing postsecondary education? (2) Should the federal government play a more prominent role in setting cost standards? And (3) how can the existing aid programs be made more effective in raising college participation rates? In addressing these questions, the authors lay out the major issues surrounding each and recount the insights of the conferees to them. To their credit, the analysis avoids the budget-busting, pie-in-the-sky reforms that usually characterize such policy conferences. By taking seriously the realities of budgetary scarcity, Gladieux and Hauptman force the conferees to address the more difficult, and more important, issue of how to make the existing dollars work more effectively.

Sometimes the issues raised in the discussion are simply updated versions of those that have dominated the recent reauthorizations of the Higher Education Act. Disagreements over whether proprietary schools should be included in the student aid programs or whether the multiple programs should be consolidated, for example, have been around for years. Occasionally, however, the book provides a new way of addressing a perpetual problem. Especially interesting is a section on how the federal programs might be modified to control rising college costs. Here the conferees discuss the merits of developing "reasonable costs standards" similar to diagnostic review groups (DRGs) in health care. By setting such standards, the federal government would establish what they would be willing to pay for an enumerated set of services. Of course, colleges would be under no obligation to charge the reasonable cost standards. Rather, those standards would be used to decide the size of student aid awards. There was substantial criticism of this approach, including that from David Longanecker of the Department of Education, who would be responsible for setting the standards. Still, this is the type of proposal that will be more widely discussed as the college affordability debate shifts from providing more student aid dollars to controlling college prices.

While the approach of the book is fascinating, it is also occasionally frustrating. It does not include an index and provides few references or citations. Moreover, the text is so brief, ninety-seven pages including tables, that many interesting ideas receive only a sentence or two of attention. At one point, for example, the authors recount a disagreement between Thomas Mortenson and Sandy Baum on the relationship between federal student aid spending and college participation rates. A full account of this exchange, between two experts who have starkly different views on this critical topic, would be of interest to many readers. However, the authors boil it down to two paragraphs that simply summarize their already well-known positions. Similarly, James Mingle proposes the creation of a "Super SSIG" program that would expand federal matching grants to the states for need-based student aid. Mingle suggests that such a plan could maintain college access and encourage state support of need-based aid while devolving program responsibilities from Washington to the states. Yet the discussion never flushes out the details of the proposal or explains how it would interact with the existing programs. The reader is thus left knowing that the idea is floating around, but without the information necessary to evaluate it.

Despite its brevity, this book provides enormous insight into the future direction of federal policy. Perhaps its greatest contribution is that among the flurry of old arguments and new ideas, Gladieux and Hauptman discern an emerging common ground that might "serve as guideposts for future conversations" on the federal effort to equalize college opportunities. Principal among these is an agreement that the federal government should begin to shift its focus away from access to college and toward efforts to increase retention and persistence. This is in recognition that in spite of the billions of dollars spent by the federal government on need-based student aid, the college dropout rates among disadvantaged and low-income students remain alarmingly high. Another area of agreement is that regulatory policies should differentiate among the various sectors and types of postsecondary institutions. This extends beyond simply separate treatment for the trade school sector. The consensus at

the conference was that federal policy should identify consistently high-performing institutions (schools with low loan default rates or with high completion rates) and reward them with regulatory relief.

This book is not for everyone. Those who are not already well versed in the vernacular of student aid and in the complex operations of the federal programs, are likely to find it inaccessible. Yet for those who are familiar with the past and present of student aid, this book provides a unique glimpse into its future. When Congress begins hearings to reauthorize the Higher Education Act in 1998, they will be considering many ideas presented in this book. They will often be listening to those ideas from the same experts who participated in the conference. Now, thanks to Gladieux and Hauptman, we have access to the agenda for those hearings two years before they begin.

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Margaret Starbuck, Journals Manager
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Understanding and Investigating Female Friendship's Educative Value

Introduction: A Heuristic Hunch

In the small midwestern coeducational college where I extol the virtues and value of feminist research and pedagogy, I am struck by how the talk of young women students with each other marks the conversational buzz in the hallways between class sessions. Conversational quizzing and animated exchanges are resonant in these corridors. With full-bodied richness, this female friendship talk carries tales of literary theory, of chemistry labs and global economic predicaments. Fashioned by spirited female voices, mathematical queries move sharply and confidently from doorway to doorway, social movements theorizing is spun with poised intellectual ease. Consciously, I listen and try to gauge the energetic yet relaxed and daring manner with which these young women collegians venture into the realm of scholarly speech and commentary with one another. I marvel at the fact that it is their female voices, and not those of their male collegiate class mates, which configure the discourse seemingly spilled over from the classroom. As I wait for my class to commence structurally disconnected from this instructional thoroughfare, I smile and silently celebrate this feminist educational coup. *These* are Wollstonecraft's professional women! *These* are Woolf's feminine intelligentsia! *These* are Sor Juana's illuminati! Yet, their public articulation of thinking, of knowing, of higher learning, the sound of female voices publicly raising objections, positing alternative hypotheses, and soliciting critique, disturbs me.

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What do I make of the nagging suspicion that once these young women enter the college classroom — even my feminist classroom, warm and not “chilly” — their voices will find hiatus in quiet listening and reflection, in conversational reticence and insecurity? Why don’t they speak in class as they have spoken to each other, as I have heard them speak in stairwells and study nooks? How does the assertive, suggestive, inquiring, probing, and nurturing female friendship talk of the corridor become the timid, pleasing, and reluctant chat of the classroom? Or does it? Is that talk simply relegated to the corridors, to the walkways, to the dormitories and lunch tables where female friendship is moderated? Why is the talk of college female friends left outside our classroom doors, even outside our feminist classrooms? There’s something to this talk, in this talk for women’s intellectual development, I tell myself. I have a hunch that these friendships are educationally powerful relationships for undergraduate women.

Review of the Literature

Feminist Research

Educators and social science researchers have explored a variety of issues affecting women in American colleges and universities and have argued that in order to effectively educate “the majority,” our institutions of higher education must understand “the culture of women” (Shavlik & Touchton, 1992, p. 47). Feminist researchers have reasoned that in order for women students to be taken seriously in our classrooms, we must recognize “the structure of the classroom interaction as a major reason [why] many women find the classroom inhospitable” (Kramarae & Treichler, 1990, p. 42), and that any deviance from the male norms of classroom participation could lead faculty to perceive young women students as uninvested and thus, pedagogically unimportant (Hall, 1985). Perhaps more to the point, researchers have acknowledged that it is higher education’s “obligation” to provide women students with “a sense of autonomy and self-worth (Astin & Kent, 1983, p. 309), an obligation, which if met, would certainly resolve many of our chilly classroom difficulties.

Complex, dynamic, and variable, the “culture of women” that Shavlik and Touchton address is, in my mind, not a spontaneous occurrence nor a biologically essential phenomenon. Rather, it is a series of women’s integrated patterns of social and intellectual behaviors in a particular educational setting. In the case of college women, this “culture,” or perhaps more accurately, “cultures,” is often about the patterns of behaviors in which women engage in institutions traditionally hostile to them. Women’s presence in higher education, and in particular, their presence

alongside men, has been about the development of their cultures in an enterprise specifically designed for men, not one for and about women.

Women's marginalization in the intellectual worlds of certain classes and races of men in the United States has been about their gendered positions within patriarchal systems. As Florence Howe reminds us in her 1978 essay, "Myths of Coeducation," postsecondary coeducation is the "education of women with men;" it is not the education of genderless students. It is, as Howe so astutely notes, about the "maleness of education," about women laying claim to male privilege (p. 208). Because "institutionalized educational settings are a major site where women's subordination is reaffirmed and the ideology of women's social place is reproduced" (Lewis, 1993, p. 146), the "culture of women" in coeducational colleges can thus be viewed as collections of gendered behaviors which play out in an oppositional environment.

In the last twenty years, researchers have investigated the legacy of "maleness" in our postsecondary classrooms in a variety of different ways. According to Williams's (1990) review of the research literature on postsecondary classroom climate for women, "many studies have found that women students do not participate as much as men students in the classroom" and that research has not "investigated what contributes to this lack of participation by females" (p. 40). Hall and Sandler (1983) asserted that the coeducational college classroom climate could discourage women from participating in class discussions and from engaging in traditional classroom argumentation, a phenomenon disturbingly reminiscent of "female inhibition" behavior studies (Megargee, 1969; Cronin, 1980). In these studies of adolescence, researchers describe girls lowering their performance levels in order to avoid defeating males. Other researchers have concluded that many women find classroom conditions detrimental to their participation (Brooks, 1982; Banks, 1988; Lewis, 1993; Guinier, Fine, & Balin, 1994; Fassinger, 1995), underscoring Hall's and Sandler's "chilly climate" appraisal. Though some researchers have argued that college students' assessment of classroom climate varies fundamentally not by sex but by class year (Heller, Puff, & Mills, 1985), the recent work by Kramarae and Treichler (1990), Guinier, Fine, and Balin (1994), and Fassinger (1995) suggests that men and women do differ in their assessment of classroom behavior and conversation and that the conditions under which they feel comfortable talking in class has much to do with the same problematic "chilly" climate conditions suggested by Hall and Sandler (1983). Taunya Lovell Banks's 1988 study of gender bias in the coeducational law school classroom, for example, suggested that women's classroom silence has much to do with their position as "outsiders" in legal education and about their

perception that their views carry no weight and their questions lack merit.

This "chilly climate" for women in coeducational college classrooms has led some researchers to examine particular aspects of the structure of college classroom climate and their effects on women's learning. Feminist scholars such as Magda Lewis have considered and examined pedagogy and women's classroom silence. In *Without a Word: Teaching Beyond Women's Silence* (1993), Lewis claims that women's classroom silence has been "framed within an ideology of deficiency" (p. 3) and challenges the idea that it is "an example of women's lack" (p. 41). Instead, writes Lewis, women's classroom silence is a political act, especially when we understand the relationship between public speaking and power: "That language, discourse, speaking, and writing are not neutral but political acts becomes clear when we realize that who "speaks" and by what authority their "speaking" is governed cannot be disassociated from these relations of power that mark the social, political, economic structures within which individuals live their daily lives" (p. 114). Thus, studies whose findings suggest that women are less verbally active than men and readily yield to men's opinions may, in fact, be gender "identifying behaviors" in the classroom spilled over from society (Lockheed & Hall, 1976). These patterns of coeducational behavior appear to begin in early schooling when boys and girls learn what is stereotypically inappropriate for their sex (Stein & Smithells, 1969) and continue into adulthood. Women in law school, for example, understand that "becoming gentlemen," the mark of a skillful legal mind, often requires behavior antithetical to their socialization as females (Guinier, Fine, & Balin, 1994).

Feminist scholars have suggested that "chosen, negotiated, achieved, not simply given" connections between women (Martin, 1988, p. 96) have taken many forms throughout space and time but, more importantly, have served many educative purposes. In nineteenth- and twentieth-century North America, for example, quilting groups, settlement houses, women's clubs, and consciousness raising groups have been places where women gathered in the absence of men in order to make connections with those with whom experiences and meanings were shared. Within these and other networks of female friendships, many of the constraints and obstacles to self-expression, learning, and female relatedness that existed in women's lives were dissolved. Many women's clubs, unions, and religious and secular organizations sought to provide women the opportunities to form and maintain female friendships where, as in the case of certain white women's groups, a "sense of freedom" prevailed (Rothman, 1978). As an act of resistance, it is a freedom, I suspect, which included, and perhaps centered around, women's intel-

lectual autonomy and liberty. Activist African-American women's groups' designed to undermine racist institutions were sororities in which women's self-definition and self-valuation were affected by a woman-centered ethos (Hill Collins, 1990). Such women tested moral paradigms — abolition, temperance, voting rights, educational opportunity, reproductive freedom — acts that philosopher Marilyn Friedman would consider morally transformative and which facilitated moral autonomy (Friedman, 1993). As Friedman suggests, women learning from women friends, unlike learning from books, is learning that is about talking on one's own terms, in response to one's own inquiries, in a language understood by both, and marked by "an authenticity and spontaneity not available in novels" (p. 201). Friedman is suggesting, I believe, that the friendship of women with each other has an educative character, a character absent in traditional ways of college classroom learning. Much like Belenky's, Clinchy's, Goldberger's, and Tarule's "connected knowers" (1986), meaning, and thus learning, results from engaging in collaborative investigations in which individuals are marked by authenticity and authority.

Woman-woman friendships appear to enable women to reflect critically on their concrete experiences, as we see in the case of feminist Lila Abu-Lughod's account of the sex-segregated world of Bedouin women of the Egyptian Western Desert (Abu-Lughod, 1995). Women's segregation and their interactions with each other, writes Abu-Lughod, are marked by a respect for personal characteristics commonly valued in men. "Energy, industry, enterprise, and emotional and physical toughness" are attributes women value in each other, and most importantly, through storytelling and singing, women demonstrate their "wisdom, intelligence, and verbal skill" to other women (p. 31). These relations appear to enhance self-knowledge, personal development, and autonomy. Their sex-segregated social intimacy brings about opportunities to "indulge in minor defiances of the system and the men in control"; "allows for the development of social responsibility"; gives women the opportunity to be moral "arbiters" and to exchange knowledge critical for the survival of the group (e. g., household management, agrarian practices, health and childrearing knowledge) (p. 29). As authentic speakers, these women educate each other in a world hostile to their sex and sexuality, in a world in which woman-woman relationships are the sources for personal and intellectual autonomy.

Social Science Research

The psychological, sociological, and anthropological research literature on college women's friendships is scarce in part due to the relative newness of adult friendship research. Despite recognition of its impor-

tance by early Greek thinkers such as Aristotle and Plato (Rankin, 1914), research on adult friendship is a rather modern phenomenon. Though research on other relationships, such as parent-child and children's peer relationships, has been ongoing in the United States since the 1920s, much of the research on adult friendship as a primary relationship has emerged only in the past twenty-five years. Treated as attributes of individuals in earlier studies, adult friendship, as Blieszner and Adams (1992) note, has only recently been viewed as a relationship of significance. More recent studies begin to reflect a general interest in gender and sex differences in friendships (Sherrod, 1989; Reisman, 1990; Wright, 1982; and Aukett, Ritchie, & Mill, 1988) but have not had college women's friendships as a central point, let alone consider their cognitive worth. Researchers' attentions usually focus on the structure, processes, and phases of same-sex relationships, often considering an "essential nature" of friendship between women (Becker, 1987), or a "central feature of women's friendships" (Aries & Johnson, 1983), such as their talk and conversations (Caldwell & Peplau, 1982; Davidson & Duberman, 1982). Though some researchers, like Becker (1987), use college women friends to consider relationship aspects deemed necessary for their friendships (aspects such as caring, trust, equality, and respect), one is unlikely to find a study dedicated to the consideration of the cognitive power and learning character of women's friendships, let alone *college* women's friendships. If mention is made of any cognitive or intellectual value of women's friendships, researchers, because their attention is fixed elsewhere, treat such observations as superfluous. For example, Hays (1989) ascertains that a benefit of same-sex friendships is "feeling intellectually stimulated and receiving useful information" (p. 25), yet we find no discussion of the implications of such a finding, nor does educational research appear to spring from such a finding.

Sex-role research that examines same-sex friendship stipulates that female same-sex friendships show greater involvement than male same-sex friendships (Levinger, 1980), greater depth (Altman & Taylor, 1973), and are longer lasting (Caldwell & Peplau, 1982; Wright, 1982). In Barth's and Kinder's (1988) assessment of gender identification and same-sex friendship studies, we are assured that "female same-sex friendships are more involved than those of males" and that women "seek friends to whom they can relate on many levels" (p. 359), thus implying that this multileveled, in-depth relation has possibilities for learning. Together with deep conversational patterns (Aries & Johnson, 1983), woman-woman friendships' multidimensional relatedness suggests that these relationships are epistemic gold mines.

Educational research on chosen peer relationships has followed a sim-

ilar course. For example, some educational research on friendship has considered these relationships within the context of college students' intellectual development (Perry, 1978; 1981; Clinchy & Zimmerman, 1982), but primarily as it applies to approaches to conceptions of learning and study habits. Often studies of friendships among college students seek to understand social support and emotional needs (Wohlge-muth & Betz, 1991), or examine student friendships as active elements of the "cocurriculum" (Baxter-Magolda, 1992). Research on cooperative learning and small group learning yields little insight into the educational character of college women's friendships specifically, and it is really only in the literature on peer-assisted learning that same-sex friendship emerges as a critical criterion for academic success (Alexander, Gur, Gur, & Patterson, 1974). Analyses of group and peer learning which posit that self-selection of learning partners minimizes dysfunctional conflict in group learning (Latting & Raffoul, 1991) support these claims.

If, as professors and researchers we believe that the purpose of articulating thoughts and raising questions in the public forum of the college classroom is to strengthen and deepen women's intellectual development (Belenky, M. F., Clinchy, N., Goldberger, N., & Tarule, 1986; McKeachie, W. J., 1990), it becomes important to investigate those experiences in which college women are not silent and in which they formulate ideas without the fear of embarrassment or degradation (Crawford, M. & MacLeod, M., 1990; Guinier, 1994). This said, how do I begin to assess the speculation that college women's friendships are indeed learning relationships? How can I begin to explain and understand a women's postsecondary learning relationship in context? How does one investigate a relationship that researchers have not previously characterized as educative and that has been unexplored and uncharted in higher education and gender research? How can this project bring together feminist theory, higher education research, and sociopsychological scholarship on women? This project, then, will seek to understand a particular phenomenon — college women's female friendships — at the intersection of these three research traditions.

Grounded Theory and Research

Grounding the investigation in doctoral work I had previously done on John Dewey's concepts of sociality and the individual (Martínez Alemán, 1992), and in the work of Janice Raymond (1986), and Nel Noddings (1991), I drafted a project to assess my suspicions about college women's female friendships. Theoretically anchoring this investi-

gation was not only good research practice, it also allowed me to maintain a steady and reliable research framework. I make note of this simply because given the nature of this topic — its absence from the literature and the demand that I join and thus relate feminist theory on self and relatedness with psychological, sociological, and educational empirical investigations — my hallway hunch would not have weathered the investigative storm. Too many connections needed to be made. This demanded a solid and trustworthy foundation.

John Dewey's Individual and Sociality

The work of John Dewey is an important theoretical anchor for this study because it is Dewey, in his dismissal of both dualistic thinking and the purported tension between the individual and society and between autonomy and interdependence, who provides a framework for understanding who women are as individuals and as knowers in friendship relationships. Dewey's view of the individual as an integrated, interdependent, and interactive knower allows for the possibility that learning can take place within a relationship characterized by the existence of both a mutuality of interests and autonomous growth.

Dewey's individual is an integrated individuality whose aims are not purely personal, nor purely social. Such an individual, he insisted, is not ready-made. We are capacities for development that is always incomplete and evolving (Dewey, 1930) and absolutely dependent upon others. In this way, Dewey allows for a feminist reconstruction of women as individuals characterized by their gendered (thus social) relationships and their particularity as human beings. Dewey's individual is not an isolated, ego-centered, asocial individual. Rather, she is an individual in relation with the world, a relationality in which communication is critical. For Dewey, communication, intelligence, and interaction are the conditions necessary for the development of individuals and, more specifically, for learning (Dewey, 1916). In Dewey's view, "relationship," or in the pragmatic vernacular, "experience," is a condition necessary for learning.

This mutual dependence between individuals is characterized by a reciprocity of interests and relationality. The individuals in Dewey's social unit share purposes and are mutually sympathetic. The "worth" of relationships can be measured by the degree to which interests are shared, cooperation is enacted, and individuals experience growth. In his assessment of group sociality, Dewey asserted that the degree to which interests are consciously shared by individuals are "numerous and varied" and "full and free" (Dewey, 1916, p. 83) is indicative of the learning potential of relationships. He warns that barriers which prevent the shar-

ing of common interests, "barriers to free intercourse and communication of experience," prevent the development of the individual. Let's remember that for Dewey, the more fruitful the association and intercourse between human beings, the greater their experience, the greater the potential for learning. The greater their experience, the more progressive an individual's growth. And progressive growth, according to Dewey, is the distinguishing trait of intelligence (Dewey, 1916, pp. 81–99).

Dewey's sociality necessarily requires the freedom to be autonomous. It must have those "positive conditions, forming the prevailing state of culture," which release individuals from "oppressions and repressions" (Dewey, 1939, p. 7). In effect, it is a sociality which requires autonomy. In Deweyan sociality, it appears, individuals are free to self-direct, self-govern, or simply put, choose for themselves. It is the freedom of self-determination which must characterize Dewey's "autonomy," not a right to act as one chooses. To have the opportunities for self-determination — to be able to ascertain what I want to do, to articulate these thoughts, and to act upon them — demands an accessible experiential world, which for women in patriarchal systems is often restricted and checked.

Feminist Female Friendship and Interpersonal Reasoning

Janice Raymond writes in *A Passion for Friends: Toward a Philosophy of Female Affection* (1986), that female friendship is the "foundation for and consequence of feminism" (1986, p. 13) and "part of the history of feminist discernment" (p. 20). Inspired and motivated by women's search for meaning, female friendship seems to be a means through which women have attained an understanding of their circumstances, their possibilities, and their intellectual worth. It is a relationship that feminist philosopher María Lugones would characterize as one which is "guided by a concern for the friend in her particularity," and is "significantly constituted by understanding of the other" (Lugones, 1995, p. 142).

It is from a sociocultural constructivist perspective that Janice Raymond develops her thesis on female friendship. In *A Passion for Friends* Raymond states simply that women don't have a "biological edge on the more humane qualities of human existence" (p. 21). For Raymond it is the conditions and realities of women's lives that create the "social trust" called female friendship. The attraction of women for women is for Raymond "neither natural nor ontological" but the manifestation of a desire to recognize relatedness in patriarchal realities. The "hetero-reality" of women's lives, contends Raymond, places women in social, political, and economic associations that are "ordained" by men and are only woman-to-man associations (pp. 5–8). Relatedness and freedom to choose relations are missing for women in such a scheme, and thus they

experience a need for female friendship. Female friendship, then, emerges from "women's search for meaning" about herself and others like herself (p. 20).

Female friendship's starting point is for Raymond, the "companionship of Self," the experience of knowing oneself as a unique individual. It is a "Self" that Raymond defines as an "authentic" self that women are "recreating"; it is not a self that is "grafted" onto women by patriarchy (Raymond, 1986, p. 4). Given that Raymond believes in a socio-cultural construction of woman, we can take her use of the term "Self" not be an essential self but rather an identity that women construct individually and one that is not prescribed by patriarchal forces. For Raymond to say that the female "Self" is "authentic" and constantly being recreated by woman, she infers not that an essential self is present, but that a self constructed by and for woman is possible.

It is the "affinity a woman has with her vital Self" that enables her to care about others like herself (Raymond, 1986, pp. 5-6). This may hint at a kind of self-knowledge and appreciation that is self-serving and individualistic, but I do not think that Raymond is suggesting this at all. On the contrary, the assertion is that through a real knowledge of Self, a meaningful knowledge, one is able to reason and consider the Self in relation to others. The real self, discovered through thinking, is uniquely fundamental and original, yet consonant with others, and not obsessively self-involved (1986, p. 222).

Raymond's view that women's attraction for other women rests on the belief that there is an integration, a healthy dynamic between Self and Others, between female friends. As a "social trust," female friendships involve "reciprocal assurances based on honor, loyalty and affection" (Raymond, 1986, p. 9), a trust I assert, that is extremely rare between women and men, given our well-practiced patriarchal ethos. That female friendships have managed to get beyond sociocultural barriers, or what Raymond calls the "female state of atrocity" (1991, p. 350), is testament to the strength of the human "longing for relatedness" (Noddings, 1984, p. 104) and self-affirmation. Somehow, women have known that, given the realities of patriarchy, the coming together of women in the absence of men allows for the freeing and subsequent affirmation of Self, an act Dewey would name "educative." As "an understanding that is continually renewed [and] revitalized" (Raymond, 1986, p. 9), female friendship demands conditions conducive for individual and shared growth. Raymond puts forth four conditions necessary for feminist female friendship: thoughtfulness, passion, worldliness, and happiness.

It is through thinking that a person can discover her real Self; it is thinking restored of "thoughtfulness," however. Raymond views think-

ing as theory and thoughtfulness as theory applied, theory practiced. Searching for meaning is thinking; thoughtfulness injects into thinking's rational orientation a consideration and caring for others and respect for their needs. Knowledge without meaning is useless for association. It is simply "know-how" and lacks the thoughtful experience of knowing "why" something or someone is so (Raymond, 1986, p. 218). Echoing Dewey's concern for connection as necessary for meaning and thus intelligence, Raymond's thoughtfulness is "the intentional endeavor to discover specific connections between something we do and the consequences which result" (Dewey, 1916, p. 145).

Because Raymond's female friendship begins with knowing the Self, thinking about oneself must be a fundamental necessity of female friendship, and such is the case. Raymond emphasizes what she calls the "duality of thinking . . . that is, the duality of 'myself with myself' . . . the one who asks and the one who answers" (1986, p. 222). In Raymond's view, such meaningful thinking will enable conversation with Others because in understanding Self we understand our need for association. Each participant in friendship conducts the same personal dialogue, setting up the dialectical movement where being an "original Self" and a friend is simultaneously possible. Thinking individuals, then, maintain their integrity while at the same time attaining group membership through friendship. Intelligent (thoughtful) thinking communicated and shared will undoubtedly lead to intelligent action, a formula that Dewey would find made to order, and one that is clearly educative.

In "Stories in Dialogue: Caring and Interpersonal Reasoning" (Noddings & Witherell, 1991), Nel Noddings considers the development and composition of a relationality that resonates with Raymond's feminist friendship and Dewey's sociality, giving us language to investigate the educative character of female friendships. "Interpersonal reasoning," writes Noddings, "is guided by an attitude that values the relationship of the reasoners over any particular outcome, and it is marked by attachment and connection rather than by separation and abstraction" (p. 158). An inductive reasoning, it is marked by its openness, flexibility, and genuine concern for the relationship. Building each other's self-esteem and confidence is a central component of interpersonal reasoning and is developed through dialogue (pp. 163–164).

A "thinking heart" is the manifestation of another condition, that of passion, for Raymond's female friendship. A "thoughtful passion," according to Raymond, does not place thinking and passion at polar ends. Instead, their integration and connection allow for the positive action that ensures the growth of both the individual and the friendship (Ray-

mond, 1986, pp. 223–225). To influence, to act on, to move and impress, and in turn, to be influenced by, acted upon, moved and impressed by others, is the thoughtful Gyn/affection of female friendships (1986, p. 8). For Raymond, friendship that is distinguished by “thoughtful passions ensures that a friend does not lose her Self in the heightened awareness of and attachment to another” (p. 225).

Friendship provides a location in the public and private worlds of our realities, and this, contends Raymond, is a critical significance for female friendship. Both a personal and political space, “worldliness” seems to be the practiced intelligent, passionate action of female friends. It is both personal and political, and it must be given female friendship’s relational thinking. Engaged in association, the Self transcends the alleged boundaries between private and public and acknowledges both direct and indirect consequences of association. In this sense, Raymond’s worldliness underscores Dewey’s contention that we do not exist as solitary beings whose involvement is inconsequential or unimportant. For women, Raymond’s worldliness introduces her Self as female Self to man-made political space, and her subsequent participation thus becomes meaningful. The worldly woman, then, lives with integrity in the world.

But Raymond also adds that it is woman’s worldliness which enables her to maintain the feminist vision necessary to change those aspects of the world’s realities that are unfriendly to her. This positions the individual, in this case woman, as agent for change, agency that “acts with respect to the other on the basis of shared understanding” (Gould, 1988, p. 75). Such agency allows for the fuller development of the individual.

Research Rationale

Taking Lather’s (1991) feminist analysis of educational and human science research to heart, I constructed a study that would reflect women’s cognitive styles and learning conditions. Much like Holland’s and Eisenhart’s (1990) inquiry into the culture of romance among college women, this investigation of college women’s friendship sought to understand women’s experience in a particular educational context. In the summer of 1993 I sketched out a research plan to assess the cognitive nature, power, and educational value of college women’s friendships. I reasoned that I could come to some understanding of how some college women view the educational value of their friendships with each other through the use of qualitative/naturalistic research methods that would yield a “telling” of the friendship relationship. This project, I believed, required research methods that could tap meaning-rich narratives and dialogue that would bring into relief, a relationship of knowledge

unexplored. My confidence in the use of dialogue in the form of semi-structured interviews is supported by Grumet's critical assessment of narratives, storytelling, and dialogue as "forms for educational research and criticism" (Noddings & Witherell, 1991, p. 67). I believe that Grumet is correct when she writes, "our stories are the masks through which we can be seen, and with every telling we stop the flood and swirl of thought so someone can get a glimpse of us, and maybe catch us if they can" (p. 69). Thus, in order to "get a glimpse" of female friendship's educative value, methods had to provide the conditions for the "telling" of friendship.

Because it is through listening to their talk that I first observed qualities judged necessary for learning (qualities discussed in Marton, Dall'alba, & Beaty, 1993; Saljo, 1979; Solano, 1986; Blieszner & Adams, 1992), I chose to examine college women's friendship talk as the site for research consideration. "Talk is the substance of women's friendships;" it is the "central feature of women's friendships" (Aries & Johnson, 1983, p. 354). It is in talk, in conversation with women friends, that women's intellectual abilities and potential are respected. According to Aries and Johnson, it is in conversation with each other that women friends "develop a sense of inner security and self-esteem" (p. 355).

To measure the learning character of woman-woman friendships among undergraduates at my small midwestern college, I looked at the work of Marton, Dall'alba, and Beaty (1993), Solano (1986) and other learning researchers. In Marton's, Dall'alba's and Beaty's (1993) updating of Saljo's (1979) phenomenographical study on the conceptualization of learning, university students were interviewed in order to "give more precise characterization of the differing conceptions of learning" and to "identify relationships between the conceptions" (Marton, Dall'alba, & Beaty, 1993, p. 279). Saljo's initial findings had suggested that students recognized learning as academic in nature and that learning was about the increase of knowledge, about memorizing, the acquiring of facts or skills, understanding meaning, and the interpretation of reality (Saljo, 1979). Students interviewed by Marton et al. reiterated Saljo's five categories with one addition: learning as changing as a person. When one finds a new way of seeing phenomena, it means that one sees the world or an aspect of it differently. This new view or "seeing the world differently means that you change as a person" (Marton, Dall'alba, & Beaty, 1993, p. 292).

These six conceptualizations of learning are analogous to Solano's (1986) functions of friendship and Blieszner's and Adams's (1992) descriptions of the cognitive processes resident in adult friendships. Solano submits that friendships function to meet certain needs. Meeting

such needs as information provides friends with a feeling of security, while meeting such cognitive needs as conversation, ideas, and experiences provides a way of assessing self. Emotional needs such as acceptance, trust, and love are also met through friendship. Blieszner's and Adams's (1992) survey of the literature on adult friendship reveals that integral to the cognitive processes involved in adult friendships is the requirement of "ongoing growth and change" (p. 62).

What of friendships between women? In her "structural description" of friendships between women, Carol Becker (1987) posits that women's friendships with each other involve a maturing dialogue between autonomous but interdependent agents and are relationships that provide "a context for each woman becoming herself, personally and interpersonally" (p. 65). Here again we find that friendship between women is a site for growth, growth that results from an "evolving dialogue" between interdependent agents. In Johnson's and Aries's (1983) examination of the talk of women friends several themes emerge that reinforce Becker's (1987) and Marton, Dall'alba's, and Beaty's (1993) work. Johnson and Aries found that women friends engage in noncritical listening, describe the relationship as supportive and interdependent; women friends reported that they positively affected each other's self-worth and viewed each other as necessary for self-discovery and growth (pp. 357-358).

What this research on learning, learning relationships, women's and college students' friendships suggested to me was that for college women's friendships to be educative, to be a site for college women's intellectual and academic development, these relationships must provide college women a site for assessing meaning of self and of reality, a site for the experience of different perspectives and viewpoints, and an opportunity for growth through interdependency.

Thus, beginning in the autumn of 1993 and ending in the spring of 1995, I asked 44 undergraduate women to participate in a qualitative study designed to help me understand the educative nature of their friendships with other college women. The qualitative character of this study was drawn from research strategies described in Lincoln and Guba (1985) and Ely, Anzul, Friedman, Garner, and Steinmetz (1991). For example, categorizing techniques, establishing categories, developing themes, and member-checking strategies reflect these researchers' desire to make a "three dimensional whole" of data through which I can understand such relational phenomena as female friendship (Ely, Anzul, Friedman, Garner & Steinmetz, 1991). The use of semistructured interviews was an important element of this feminist research, because it offered me "access to [women's] ideas, thoughts, and memories," a condi-

tion critical for feminist research (Reinharz, 1992, p. 19). As Reinharz notes, the use of interviewing in feminist research "is particularly important for the study of women, because in this way learning from women is an antidote to centuries of ignoring women's ideas altogether or having men speak for women" (p. 19). In a study that is about the consideration of an aspect of women's relationships that is customarily ignored, the use of the semistructured interview made feminist methodological sense.

By the autumn of 1994 participants in the study had completed surveys and informal interviews, and by December of that year, 24 of the original cohort participated in an in-depth discussion of the phenomenon. Of these 24 college women, 16 — by then all juniors and seniors — had spent additional time with me in a lengthier semistructured research interview, in which they talked about the performative nature of the relationship, its role in their academic successes, and their perceptions of its significance to their cognition. It is important to note here that as these women talked about their friendships and about themselves as students in the classroom, it became clear that who they were as speakers and knowers in the college classroom and who they were as speakers and knowers in female friendship was incompatible. The differences they expressed suggest to me that the coeducational classroom can still be viewed as inhospitable for many women and that a feminist pedagogy that has as its central ethos collaborative or friendship work may be a vehicle for many college women to come to an intellectual and academic voice outside of their female friendships.

Method and Data Sources

A purposeful sample of undergraduate women participants from enrolled students in five undergraduate classes¹ at a small liberal arts college in the rural Midwest of the United States of America was collected. They included 7 seniors, 17 juniors and 20 sophomores. Given the study's focus on established close female friendships, it was decided that no first-year/first-semester women would take part in the analysis. This participant restriction was necessary because first-year/first-semester women are not "information rich cases that manifest the phenomenon of [close female college friendship] intensely" (Patton, 1990, p. 171). For such intensity sampling (Patton, 1990), first-year/first-semester women were clearly ineligible. The women participating were of traditional college age, ranging from 18 years to 23 years, with the vast majority (93%) between the ages of 19 and 21. Much to my disappointment, racial and ethnic distribution within the pool of participants made

it impossible to glean any understanding of Latina, Asian, or African American women's friendships, because only one Latina and no Asian American women participated in the study. I had hoped that the participation by four African American women would allow for some discussion on these particular African American college women's friendships, but given the cursory responses by each of the four African American women participants and the limits of a standardized open-ended interview (Patton, 1990, p. 287), I gleaned little insight into the cognitive character of their friendships. Much the same can be said of the distribution of heterosexual, bisexual, and lesbian participants: Two women self-identified as bisexual, 3 women as lesbian, and 38 as heterosexual.

Participants were asked to share their perceptions about their friendships with college women by completing a questionnaire and answering several standardized open-ended questions posed by trained interviewers. Participants were told that the entire exercise would take no more than 50 minutes, a time determined by pretests on participants made ineligible for the study during the preceding summer. No participant expressed the need for extra time nor did anyone suggest that the time allotted was inadequate. All participants were asked to read the introductory page of the questionnaire explaining the purpose of the study, their rights and responsibilities, and confidentiality (Appendix C).

In both the interviews and survey, I asked women to describe the purposes they thought that their conversations with a close female friend served. The initial survey asked the participant women to choose one particular female friend who attended the college and, with her in mind, to complete a questionnaire consisting of five open-ended/multiple response questions designed to solicit from participants the topics of their conversations with their friends and words used to describe intellectual and academic properties of their friendships. Such questions would allow me to explore the participants' views of reality — in this case, female friendship — and develop theories about this phenomenon (Reinharz, 1992). These items were constructed for the purposes of testing their perceptions of these friendships against Raymond's model of female friendship (1986) and as sources of comparison for the standardized open-ended interview. The following open-ended questions were posed:

1. What ten words would you use to describe your relationship?
2. Think of the same close female college friend. What ten words characterize your conversations?
3. What do you and this close friend talk about?
4. What words would you use to characterize the role you each play in the other's intellectual growth?

5. What words would you use to characterize the role you each play in the other's academic performance?

The questions designed to ascertain their perceptions of their conversations' purposes were framed to suggest that "academic" and "intellectual" objectives were our focus, that I was interested in knowing how their talk was "academic" — about matters of school (course content, exams, papers, etc.) — and how they were about "intellectual" matter — ideas, theories, knowing "outside" the realm of undergraduate course work and requirements.

The addition of a 13-item Likert scale served as a final source of comparison for the interview. The items on the scaled response section reflect conceptions of learning as discussed in Marton, Dall'alba and Beaty (1993). The use of these different types of measures (open-ended/multiple response questions, scaled responses, open-ended question interview) was an attempt at triangulation and convergence as discussed in Lincoln and Guba (1985), Ahern and Baker (1990), Patton (1990), and Reinharz (1992). Many of the qualitative research features employed in this study were informed by techniques suggested in Lincoln and Guba (1985) and Bogdan and Biklen (1982).

Each questionnaire was reviewed to make sure that all entries to all questions were legible. Entries for Questions 1 through 5 that could not be recognized were discarded. Each entry for each of the five questions was then recorded and tallied by two 2-person research teams.

Question 1 ("What ten words would you use to describe your relationship?") and Question 2 ("Think of the same close female college friend. What ten words characterize your conversations?") were coded for the conditions of female friendship discussed in Raymond (1986), "thoughtfulness," "passion," "worldliness," and "happiness." In order to "test" for the feminist character of the relationship, two separate research teams coded the responses for: "thoughtfulness," defined by Raymond as the ability to reason with considerateness and caring; "worldliness," a term used to describe a friend's position as "inside outsider" in college culture; and "passion," a term Raymond defines as the thinking heart that "mov[e]s, stir[s], influence[s], and affect[s]" the other woman (Raymond, 1990, pp. 218–229). Responses were coded as "Questionable" by both teams if no agreement could be reached among team members and then between teams. A final list of coded responses was produced by comparing each team's codes, discussing questionable responses and coming to agreement on responses that had been coded differently across teams. Final response distribution can be found in Appendix B.

Responses to Question 3 ("What do you and this close friend talk about?") were coded in the same way as Questions 1 and 2 according to the categories "intellectual," "academic" and "personal lives" (Appendix E). These categories were an attempt to "test" the perception of the alleged tension between what participants perceive as intellectual and what they perceive as academic. These variables, or category sets, were chosen after researchers engaged in a process of data categorizing described in Lincoln and Guba (1985). These three emergent categories correlate with Johnson's and Aries's (1983) findings on the composition of conversations between female friends. Research teams used marginal tabulation categories (Borg & Gall, 1983) to code responses to both Question 4 ("What words would you use to characterize the role you play in each other's intellectual growth?") and Question 5 ("What words would you use to characterize the role you each play in each other's academic performance?"). The distribution of responses can be found in Appendixes F and G.

Responses to the last component of the questionnaire, the 13-item Likert scale, were tallied within question and across category (Appendix H). In addition, a percentage of "Agree" and "Strongly Agree" responses was calculated for each of the 13 items.

Immediately upon the completion of the questionnaire, participants were asked to read descriptions of two sets of friendships (Appendix C) and to take a few minutes to think about these relationships. Participants were then asked to engage in a semistructured, limited survey interview (Lincoln & Guba, 1985), which was tape recorded. Transcripts of the tapes were compiled and emergent data categories developed. Data categories and their descriptions were given to research assistants who coded interview responses according to the categories.

Emergent Themes

What became apparent after reading the completed surveys is that for these college women, their conversations with their female friend served as (1) a respite from academic stress and anxiety; (2) as validation and support of their thinking and their ideas; (3) as testing sites for ideas; (4) as risk-free testing sites for their ideas; (5) as a source for different and diverse perspectives; and (6) as sources of information and advice. Subtle differences suggest that the "intellectual" purposes of these conversations are more about growth from association, identity development, and non-performative characteristics, while the "academic" purposes appear to be about performance, individual validation, resources acquisition, and hiatus.

Respite from Academic Stress

As a respite from academic stress and anxiety, these conversations do serve different purposes, depending on whether they were identified as "academic" or "intellectual." For example, comments such as: "we keep one another from going too hard," and "it's really a stress reliever," and

she stops me from being too intense. I have a tendency to be way over intense and so she comes down and makes me stop reading for awhile. And that's probably a healthy thing academically.

indicate that the relationship is a site where academic performance is not demanded nor expected. These conversations seem to be places free of the anxiety and stress-producing performative elements of academics — tests, papers, presentations, class participation. Women often characterized talking with their female friend as

getting away from your work, getting away from reminders of your work,

and that "getting away" often had to do with respite from the demands of academic performance and being evaluated. As one undergraduate women noted, "I use it to diffuse stress" produced by exams and papers and speaking in class. Somehow these college women's talk is not perceived to be evaluated nor evaluative in this friendship relationship.

When the theme emerges as a response to the intellectual purposes of their talk, the following is the typical response:

To stimulate me to go out . . . and read a different book or we actually hand the book to the other person; then to question things like the existence of God or something more interesting than just the academic.

It appears that this type of hiatus is not about safe-haven from the academic onslaught but about an opportunity for cognitive growth. Somehow, "thinking" within the intellectual conversation is not about academic performance but about the freedom from judgment.

Risk-Free Test Sites

This same subtlety rang true when participants talked about these conversations as risk-free testing sites for ideas. Often, participants would present their conversations as opportunities to try out ideas related to a class in a "safe" environment, an environment free of criticism and directed argumentation. Note the following participant comments:

It's nice to have someone that you can talk to about ideas and not worry about being shot down in an academic setting.

We do create kind of a safe environment for one another.

One gets the impression that female friends create a temporary mock

classroom void of the elements they deem inhospitable in the classroom. Women are listened to, and they don't feel attacked:

I think that I'm a lot less hesitant when I'm with her to say things. It's at an individual level and it's not talking to the whole class and I know that she'll understand and listen to me.

Comparing them with conversations I have with my male friends, they are challenging; they might challenge my position but at the same time not in a combative way.

Just talking it out is good for me, in a comfortable environment and to be able to say something in an environment where I know I won't be killed, yelled at or something.

Female friendship provides them with a stage for the rehearsal of their thinking; it is a rehearsal space in which they do not struggle with performance anxiety, the possibility of public humiliation. It is a space in which their gendered identities as women are not poised against the demand for validation. It is as if they knew that in female friendship they will be listened to unconditionally. In female friendship, criticism and the request for help to clarify thinking are components of a congenial learning process and not threats to self-worth:

She offers critiques but not criticism, direct criticism.

If I'm not clear on something, I'm using her as a sounding board, to bounce off an idea: "Does this make sense to you?" Or: "This is my idea for a paper. Do you think this will work?"

When asked about the "intellectual" purposes of their conversations, participant comments within this theme were not about performative safety. Instead, their comments suggested that these conversations were sites for intellectual play.

We're trying ideas on each other just for the sake of ideas. It's not to help academics.

You can try out new ideas and stuff . . . it would allow me to try out this new theory I learned in class.

. . . clarifying my ideas on things and . . . I get new ideas from her.

It's just a more comfortable way of expressing ideas or different thoughts about things, which is a good way of rethinking or restructuring different things I've learned.

To view such female friendship talk as a site of intellectual play is to suggest that for these women, friendship learning has an interactive, independent, informal, and unbound quality that sets it apart from learning in their conditional, self-supported and sustained classrooms. Perceived by the participants as personally and academically inconsequential, this

learning, this intellectual practice and play, seems to provide a bridge between cognitive self and college.

Source of Information and Advice

Perhaps the most striking difference between the “intellectual” and the “academic” purposes of their conversations resides in the conceptualization of conversation as a source of information and advice. These conversations seem to serve as both pragmatic academic resources — advice about course requirements and responsibilities — and as a site for identity construction and self-assessment. Note the following sample of the responses to the question regarding “academic” purposes:

We give each other advice about classes or how to deal with the workload, . . . how to go about preparing for class. . . . We usually do a lot of explaining, a lot of clarifying . . . things that have to do with grammar and things of that nature.

I had to make a presentation in an education class and I went over it with her first.

She's taken this class before me and so academically it's very nice to have someone who's taken the class already.

These college women saw their friendships as a relationship from which they could learn to navigate college terrain, and from which they could extract the information necessary to improve the chances for academic success. Their female friendships are practical and functional in that they serve as resources for effective skills: anticipating what the professor wants, setting workload priorities, and proofreading.

The responses to the question about “intellectual” purposes of their conversations suggest that women's friendships with each other serve to enhance self-knowledge, and often, to understand their place in the world as gendered selves:

We do talk about the role of women and the society and where we are [in it].

It's intellectually rewarding that I learn things about myself. I learn, I question things about myself that I might not otherwise do. Like I question why I'm going to college, what I'm doing after college.

It helps me to learn more about myself, learn more about other people when I have conversations where [there's] a completely different perspective.

I think that she causes me to question myself a lot, . . . because she'll ask why I have that view, and it turns out that it's something I've never really asked myself.

I think that intellectually our discussions help me kind of focus a little better or kind of place myself a little better. I kind of figure out a little better who I am in relation to the outer world outside of [the College].

But it is a knowledge about self that is interdependent with enhancing self-knowledge for friends. Women talked about the development of knowledge of self in relation to the development of self-knowledge in their friend. This mutuality is characteristic of their friendship exchanges:

We'll pick up different things from what's going on . . . and say "look, did you know this?" . . . and whatever's going on — bring it out and check out if it's worth knowing.

I think that we've both gotten a lot out of our relationship — like growing as a person and changing who you are.

I can be telling a story I've told a hundred times before and suddenly it sounds differently. I think about it and she asks the right questions and you get a little more in depth. And it's very good. I learn a lot about myself. I learn a lot about her.

. . . allowed me to become more of a political person. . . . I hadn't formulated my feminist identity yet, so that was something she was in part responsible for — helping me do that. And I think that I helped her do that a little bit too.

It almost seems that when viewed as "intellectual," these conversations are not a reaction to a situation, to an immediate performative reality. Instead, they are about some refinement or development of self-definition for each friend. The "intellectual," here, is about self and *for* self, and for other, while the "academic" appears to be about performing self for someone (a professor) or something (grades). Even when describing how these conversations serve as sites for the validation of ideas, when the ideas are about academics, these conversations serve as sights of risk-free practice. Intellectual validation of ideas, on the other hand, is about "nourishing and replenishing." As in Noddings's "interpersonal reasoning" (1991), friendship talk is the means through which these women reason as contextualized, concrete and interdependent agents.

Consequences

It appears, then, that for female friends in college, conversations with each other serve as vehicles to transgress the limits of dualistic thinking, of dichotomous ideology. I say this because it is in their conversations with each other that college women friends contest the boundaries of the classroom and the hallways, and of the autonomous academic self and interdependent intellectual self. If intellectual work is nonperformative and if academic work is performative, it becomes necessary to find some means of linking what these college women perceive to be separate cognitive spheres. Their conversations prove effective means; their friendship proves an effective site for this process.

Why the need for such a site? Why the need for such a means? The easy answer to these questions is to remember the prevalence of an ideology in higher education that presents the academic as solely an individual enterprise, as individual performance, and as autonomous cognition. If the academic is perceived by college women as being about autonomy and self-directed performance — as the women who participated in this query suggest it is — and they define the intellectual as an interdependency with trusted, supportive, nurturing friend; and they maintain that they are intellectual independents as well — as the women who participated in this query suggest it does — then college women's friendships are sites where learning is an interdependent activity where self is not perceived as lost. There is no "loss of Self" in learning relation; there is a "thoughtful passion [which] ensures that a friend does not lose her Self in the heightened awareness of and attachment to another" or another's ideas or perspectives (Raymond, 1986, p. 225).

What became clear to me from the interviews of these college women is that female friendship, unlike the overwhelming majority of their college classrooms, is a site for the execution of knowledge, for the realization of their thinking. In this relationship, talk is fundamentally about authorship and about academic and intellectual agency. Unlike Judith Butler's performative nature of gender (Butler, 1990), an understanding of gender as actions produced by social practices that regulate what it means to be a woman or a man, female friendship for these college women, is a place where the articulation of their thinking and knowing — their "performance" — does constitute their identity. It appears that in female friendship, a woman's identity is not as "it is purported to be" (Butler, 1990, p. 25) but as that which is developing, becoming more complex and sophisticated. It is an identity in process and not a "given" of gendered education. It is in this friendship talk that these college women spirit not a parody — again to use Butler's notion of gender construction (p. 31) — of academic argumentation, but an active, dynamic exchange characterized by mutuality, suspended judgment, and helpful challenges. It is as if in these friendships women shed their gendered educational conditioning and revealed a self hidden by years of gendered socialization. As Valerie Walkerdine notes in "Femininity as Performance" (1994):

As girls at school, as women at work, we are used to performing. We are used, too, to dramaturgical metaphors that tell us that life is a performance in which we do nothing but act out a series of roles or indeed that these roles can be peeled away like layers of an onion to reveal a repressed core, a true self, which has been inhibited, clouded by layers of social conditioning which obscure it. Such views form much of the common sense ideas about

socialization in relation to education. Girls are conditioned into passivity (p. 57).

In my view, female friendship for the college women in this study is an educational site in which "performance" abandons its gendered passivity.

As suggested by the following comment by a senior woman participant, speaking in class, "performing" in class, is often conditionally inhospitable:

I guess my idea of thinking in the classroom is that it's not a process that can be done out loud unlike in your friendship; it's a process that has to take place internally and then it's allowed to come out and it's supposed to be polished.

"Thinking out loud" is not a process that is valued in the classroom. Rather, she maintains that thought must be pre-processed, positioned and directed, definitive, and must be "well" articulated. For these college women, speaking in a classroom is fundamentally an act of disconnected, perfunctory "academic" performance and not an act of "connected knowing" (Belenky, et al., 1986); it is *not* an opportunity to develop self, voice, and mind as a totality. This holds especially true when subject areas, disciplines, or professorial style are perceived to be disconnected or distanced from "real" life, as when course content is presented as "abstract" and unrelated to their experiences. For example, a senior mathematics major makes the distinction between friendship talk as life-related and higher mathematics as too "abstract" to be "related" to her life experience. Often, these women speak in class just to fulfill some ill-defined and ambiguous requirement called "class participation," making only "safe" and "polished" comments. Many described this speech as commentary that was not "exploratory," "controversial," or "risky." It seems, then, that classroom performance for these undergraduate women is less about a genuine intellectual exercise and more about safety, or about little possibility of penalty.

The "risks" associated with classroom performance, according to these junior and senior women, are forged by what is perceived to be an equation that results in the judgment of the individual. It appears that for these undergraduates, the lack of intimacy between themselves and their classmates does not allow for the development of trust between individuals, a trust that appears to be critical for these women to engage in the kind of dynamic, relational, and critical thinking they deem necessary for knowing and understanding. Interestingly enough, the professor — the class member institutionally sanctioned to judge and criticize — is a secondary variable in this equation. Women spoke much, much more of their concerns about peer judgment than of professors' evaluations.

I don't know these people [other students] well and I'm afraid they might criticize me, . . . you don't know what they are going to say. You don't know if they're going to totally criticize you, if they're going to think that you're an idiot.

I've always wondered why I'm so timid in class, why I don't want to bring issues up. I keep my mouth shut just out of fear that I'll be shot down and because there's a lot of times when there are competitions in our classroom. The competition is there and sometimes I don't think that I would match up because I have a tendency to listen to other people, to hear what they say, to listen to their views. In a classroom [listening] can be perceived as you're weak.

I'm sitting in classes with twenty other people and I don't know them. I make a comment and it's kind of the only thing they have. I mean., you don't have any relationship with them outside of class. You don't know them as a person, you don't know anything about them; . . . the one component [making a comment in class] becomes all-important. [With a friend such a comment/position taking] is just one component of you that they assimilate in forming the picture they have of you.

Classmates, as "strangers" who only know them by what they say in class, will judge their intelligence based on the one or two comments expressed throughout the semester. Faculty, on the other hand, have more than one or two opportunities (papers, exams, office meetings) to assess their intellectual worth before making judgment.

The fear of being judged, especially being judged as unintelligent, is what many of the women expressed as the reason for perceiving classroom performance as risky and thus why they are unlikely to ask questions, express a minority opinion, play the devil's advocate, or publicly wrestle with ideas.

[With a friend] you can take risks because you have this trust that your friend doesn't think you're dumb. They value you for other things other than your intelligence.

I think that's [being judged as intelligent] something that's very, very important at [the college]. It's not necessarily academic performance, but some level of intelligence is very important . . . this defines you as a [college] student.

Classmates are often viewed as "strangers" who must be impressed by intelligence performed.

The people in the classroom — the only basis they have for knowing me is the fact that I'm in class with them; . . . it's the only thing they have to base their opinion of me, or whether or not they want to get to know me. I'm sitting back there [in class] going "Okay, are they going to think that if I say this. . . ." How do I think it will make them perceive me? It's ironic because it's such a small school and you would think that they wouldn't be strangers.

Much like verbal messages communicated in high context cultures, who the speaker is important, and even more important is the distinction of stranger versus trusted insider (Hall, 1976).

These college women see the classroom as a place for traditional argumentation, a pedagogy they see as inhospitable. They do not see the win-lose/debate paradigm as intellectually challenging. On the contrary, traditional argumentation is not viewed as a way to challenge thinking; it is perceived as "antagonistic," as "degrading" of individual thinking, and as a static cognitive activity — her thinking remains unchanged, unenhanced, and unexplored. Power relations in the classroom are constructed by these college women as a dynamic, which does not allow for the meaningful challenge of their thinking, thus it does not allow for knowing as an evolutionary and effectual exchange. The classroom, unlike their female friendship, is a site that "cuts off" or stalls the thinking process. These female friends do not seem to "interrupt" each other's thinking. Instead, they are likely to ask probing questions meant to gain understanding rather than the argumentative upper hand. One gets the impression that college women understand their knowing, their intellectual growth, to be about relatedness, exchange, mutuality, and an autonomy that is essentially about interdependence. And it is in describing their female friendship talk that one begins to understand that it is there that these women find a hospitable performative platform.

In my view, it is certain that the crux of this performance is rooted in intimacy and trust. Women often gauged the risk of speaking in class by the degree to which they "knew" the other class members and the degree to which classmates "knew" them. "Knowing" a person, for these undergraduates, means that one can be trusted not to criticize thinking in a way that is degrading, nor to engage in a "competitive" discussion, and to be assured that power in the dialogue will not be framed as dominance and submission — that the objective of the talk is not to have a winner and a loser, and thus have one's thinking dominate or be unequivocally "right."

In female friendship, college women can experience the free-flowing, playful, and risk-free performance that for them constitutes purposeful, practical, and productive learning. The talk of undergraduate female friends is characterized as a performance in which intellectual confidence is restored, in which expressing "minority opinions" is commendatory, and unlike classroom performance, it is one filled with questions and play circumscribed by safety. Women frequently described how in their female friendship, each woman often takes on the devil's advocate position in order to help the other develop her thinking. In female friendship, it seems, performing the less accepted or approved

cause is done less for the sake of "pure" argument than for the sake of self-determined knowing. It is also true that these women did not feel that taking a "devil's advocate" position was risky for them. It is as if the friend's self-determination, the friend's journey towards knowing, is given primacy. Being the "devil's advocate" is in female friendship, a performance which benefits both actors: for one, it is about the evolution of knowledge; for the other, it is about the facilitation of knowledge for a trusted other.

Discussion

In January of 1995 I concluded my examination believing that I had posed more questions than I had answered. Though I was confident that I had proven my presuppositions about college women's friendship talk, I was left with a series of pragmatic educational questions: What *are* the implications of the realization of the educative power of female friendships for higher education pedagogies, curricula, and classrooms? What is there to be done with this new insight?

Pedagogies, even feminist pedagogies in higher education, I now believe, will need to reconsider and view in a new light the value of familiarity and interdependency among women students. These relationships appear to be resources for academic success. Can they be identified and put to good use? Can, for example, feminist pedagogies appropriate fundamental characteristics of such female friendships in order to better the learning conditions of *all* students? One suggestion is that college women's friendships can serve as models for educational research on the dynamics of autonomy and interdependence, and consequently, as models for university and college instructors who wish to create the types of feminist classrooms that develop voice, mind, and self.

Female friendships can be models for peer-assisted learning in higher education. As pointed out by Alexander, Gur, Gur, and Patterson (1974), peer-assisted learning is an "often neglected but potent resource inherent in a student population" (p. 175). Their studies reaffirm the suspicion that arbitrary partnerships within pedagogical practices are problematic and that success of these learning partnerships is attributed to friendship (p. 179). The college women I interviewed indicate that arbitrary groupings in courses are problematic but become less so if two conditions are imposed: the size of the group and the length of time that the group is asked to work together are critical for attaining intimacy and trust, for "knowing" the other group members. All of the women spoke about the size of the group in terms of its correlation, whether positively or negatively, to intimacy and, consequently, their ability to voice concerns, ask

questions, negotiate demands, and "think out loud." A handful of these women spoke of one particular class in which they were asked to form small groups in which membership was freely chosen. These all-women groups were together for the whole semester, working each week for a required number of hours, and periodically presenting research to the whole class. This type of grouping seemed to contain the important elements of intellectual performance that they described in their female friendships; it allowed the members to get to know each other more thoroughly, thus avoiding the pitfall of being "strangers" engaged in a mini-classroom. As the semester progressed and students got to know each other better, the women felt that they were far more vocal, that their thinking was challenged, that they were able to ask questions that would generate discussion, and that they were able to test their ideas without fear of humiliation or dismissal. As the intimacy of the group increased, so did the students' participation. Points and opinions were negotiated; thinking evolved over the course of what was described as a "continuous and shared conversation"; decisions/judgments could be suspended. Thus, if one of the more bothersome burrs in the collaborative learning theoretics is the conflict between individualistic tendencies and the requirement for interdependence, it appears that women's friendships' reconciliation of this tension can provide insight into this educational quandary and can provide an effective model for peer-assisted, cooperative learning situations.

It seems, then, that a pedagogy patterned after their female friendship can be a site for intellectual performance. To replicate the conditions of female friendship (risk-free testing sites for ideas, source for different perspectives, validation for thinking) in our university and college classrooms and as sources for information, may not be an easy task but it is, as these undergraduate women made known, nonetheless possible. If Perry's (1978; 1981) conclusions, which suggest that intellectual development among college and university students relies strongly on supportive relationships, and if Astin's (1992) assessment that peer group is the most important influence on academic and cognitive growth in post-secondary students are correct, then it would seem reasonable that we consider ways to implement such pedagogies designed to improve the conditions for our women's intellectual growth and academic success.

Often, the college women I interviewed spoke of the ways in which they "make time" to talk to their female friend, action which is a consequence of the demands of an academically rigorous semester system and the need for study. Time appears to be at a premium for these women, and most women expressed that the stresses of school work and academic schedules did not leave much time for friendship talk. Thus, another

consideration for postsecondary institutions concerned with the quality of women's intellectual development is to assess how institutions and institutional policies provide opportunities and space for these conversations.

The reason most cited for interfering with female friendship is, quite plainly, "school." Because of this, these college women either purposely schedule time with their friend, either on or off campus, or hope for the spontaneous opportunities that may or may not arise on this small campus in the dormitories or in off-campus houses. Often, when women feel the pressure of academic work, engaging in friendship talk is deemed reasonable only when an urgency is sensed:

Sometimes I feel like I only want to talk when I have something important to say,

or when talk can be legitimized as a "study break" or a "stress reliever." Several women remarked that talking over lunch or dinner is good use of time and are hence less likely to feel as if they were taking time away from school work. However, when friends do take time "for themselves," as one senior women describes it:

You have it in the back of your mind that I should be doing this or that kind of [work].

In many cases, friendship talk appears to be viewed as a dereliction of student duties. It is as if time spent talking with a female friend held no academic value, no educational worth, and were somehow frivolous and irresponsible.

Privacy, private space and residential arrangement also seem to be important for engaging in friendship talk. Many women noted the advantages of living in off-campus houses, a living arrangement that, unlike the dorm, seems more practical and convenient.

Because I live with my close friend, there's a lot of time when normally I wouldn't be studying. . . . So after dinner, when I'm brushing my teeth and getting ready, putting my books together to go to the library, I'm spending time with [her].

Being off-campus helps you mentally separate yourself from school work.

The implications for higher education student affairs/cocurricular programs are obvious. Residential systems and student space should be assessed based on the knowledge that for college women time spent with female friends can be educational, can be part of learning in the "cocurriculum" (Baxter-Magolda, 1992). Institutions can consider such issues as the availability of private space for after dinner conversations in the dining halls or in the student pay cafeteria. As a senior woman re-

marked, when she and her friend do manage to take time after dinner to sit and talk over hot chocolate, they are quickly ushered out by the dining hall staff after the last meal is served. Early closing hours at the college's pay cafeteria presents them with a similar problem.

Publicly validating female friendship's educative potential is, in my opinion, one of the more proactive campaigns to validate women's intellectual development. Understanding that women's friendships and talk are vehicles for learning and cognitive growth, does the institution publicly prize women's academic partnerships, an act implicitly (if not explicitly) validating these ways of knowing and cognition? Does the institution revere academic sorority? Providing evidence that such partnerships are important and educationally useful gives women students a sense that their interdependency with women can be academically profitable. Institutions of higher learning can present through colloquia, symposia, panel presentations, and other public forums, examples of effective collaboration between women friends. In our own classrooms we frequently use texts, essays, and research by female friendship collaborations. Do we make a point of this successful intellectual interdependence thus validating this kind of relationship? In my own class on American feminist educational theory, I can now imagine how our discussion of *The Feminist Classroom* by Frances A. Maher and Mary Kay Thompson Tetreault (1994), or our analysis of the collaboratively authored *Women's Ways of Knowing* (1986) can be framed as thinking, knowing, understanding, and investigating through female friendship. I can bring to my students' attention the fact that Mary Belenky talks about writing *Women's Ways of Knowing* (1986) as "a world of 'pajama parties' that gave the women friends the 'luxury of sustained conversation' (Ashton-Jones & Thomas, 1990, p. 275), and that this serious and formal collaboration between women friends was about excitement, loving, and hard-nosed assessment and critique (p. 280). Embarrassingly, I now note that in the years in which I have taught this course and on those occasions when I have discussed these books with students, I have never reinforced the works' most formidable educative characteristic: the friendship among the women.

At the conclusion of this investigation, I remarked to my best female friend that I was certain that I had continued to raise far more questions than I could, at least for the moment, adequately and confidently address. She reminded me that this heuristic hunch of mine seemed more like a commitment to theorizing that would, in all inevitability, incite further research, generate more concrete and more tangible "discoveries." She's right, of course. My goal here has been to present a possibility, to ascertain the character of the phenomenon, and to suggest consid-

erations. Understanding and investigating female friendship's educative value is territory I encourage us to explore, discuss and deliberate. Whether as practitioners, researchers or theorists, female friendships are relationships in which, I submit, we can come to understanding in greater depth, women's knowing, thinking, and cognition. It is an expedition worth taking.

Appendix A

Demographic Data

Q1		Q2 Major	
Seniors	7	Anthropology	3
Juniors	17	Anthropology and Environmental Studies	1
Sophomores	20	Biology	4
		Classics	1
		Economics	1
		English	6
		History	4
		Music	1
		Philosophy	1
		Physics/Math	1
		Political Science	3
		Psychology	9
		Religious Studies	1
		Sociology	5
		Spanish	2
		Theater	1
		Undeclared	4
Q3 Concentration			
AfroAmerican Studies	1		
English/History	1		
Environmental Science	1		
Gender Women Studies	11		
Latin American Studies	1		
Not answered	14		
Psychology	1		
REES	1		
Social Work	1		
Q4 Age			
18	2		
19	15		
20	14		
21	10		
22	1		
23	1		

Appendix B

Demographic Data

Q5 Race		Q6 Cultural Identity	
African-American	4	African-American	2
Asian-American	0	American	29
Bi-Racial	2	German	1
Caucasian/White	36	German-African American	1
Latina	1	Greek	1
		Haitian	1
		Hungarian	1
		Irish-German American	2
		Jewish	3
		Latina-American	1
		Slovak	1
Q7			
Heterosexual	38		
Homosexual	3		
Bi-Sexual	2		

APPENDIX C

The Cognitive Value of College Women's Friendships: A Case Study Research Questionnaire

Today you are being asked to share your perceptions about your friendships with college women. You will be asked to consider the intellectual and cognitive worth of these relationships, as well as their impact on your learning. It is the researchers' contention that your friendships with college women may serve as learning relationships. You will be asked to provide the researchers with descriptions of your friendships with college women as they pertain to your assessment of their cognitive nature, power and value. The researchers hope to consider how institutions of higher learning can encourage and provide undergraduate women the opportunities and environments for such relationships. You may find that this exercise will bring you a greater awareness and appreciation of your friendships with college women.

The completion of the questionnaire and several open-ended questions should take about 50 minutes. Your responses to these questions will be tape recorded and transcribed for use by the researchers only. After this short interview, a researcher will answer any questions you may have about the research and address any of your concerns. You may withdraw your participation from this study at any time without penalty and are encouraged to contact Prof. Martínez Alemán (Steiner 303, X4218, Box C-4) should you have any questions after your participation. A summary and status of the research will be mailed to you early in the Spring semester. The researchers respect your privacy and appreciate your willingness to participate in this project. All responses to questionnaire items and questions are confidential, as is your name and college address. Should reference be made to any of your responses in a manuscript, a pseudonym will be assigned.

Please sign below if you agree to participate in this research. Your signature indicates that you have read the above and understand your rights and responsibilities.

Thank you.

Date Signature P.O. Box

*Please turn to Page 1 of the Questionnaire and begin.
Thank You.*

APPENDIX C

Page 1

Please complete the following and be assured that all data will remain confidential.

1. Year in College _____
2. Academic Major _____
3. Academic Concentration _____
4. Age _____
5. Race _____
6. Ethnicity/Cultural Identity _____
7. Sexual/Affectional Preference _____

Throughout this research questionnaire, as the basis for your responses, please choose *one* particular close female friend who attends this college and answer the questions as best you can.

1. What ten words would you use to describe your relationship?

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

2. Think of the same close female college friend. What ten words characterize your conversations?

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

Please turn to Page 2 and continue.

APPENDIX C

Page 2

3. What do you and this close friend talk about?

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

4. What words would you use to characterize the role you each play in each other's intellectual growth?

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

5. What words would you use to characterize the role you each play in each other's academic performance?

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

Please turn to Page 3 and continue.

APPENDIX C

Page 3

Keeping in mind the same close female college friend referred to in your responses to the previous items, please circle the one response you feel best reflects your thinking to each statement below: There are five possible responses: Strongly Disagree (SD), Disagree (D), Neutral (N), Agree (A), and Strongly Agree (SA).

- | | | | | | |
|---|----|---|---|---|----|
| 1. As I think back over the academic work I've done in college, my relationship with my friend has positively affected my understanding of course material. | SD | D | N | A | SA |
| 2. I feel comfortable when my friend and I discuss important issues. | SD | D | N | A | SA |
| 3. I gain confidence in my intellectual abilities through my relationship with my friend. | SD | D | N | A | SA |
| 4. Though we share thoughts and have similar opinions, I feel that my friend and I are intellectually independent individuals. | SD | D | N | A | SA |

- | | | | | | |
|---|----|---|---|---|----|
| 5. Our friendship provides a location for me to take intellectual risks. I can try out ideas, thoughts, theories and not risk ridicule or condemnation. | SD | D | N | A | SA |
| 6. I feel that my friend respects my intelligence. | SD | D | N | A | SA |
| 7. My friend often encourages me to consider a different angle on a problem or an issue. | SD | D | N | A | SA |
| 8. My friend is a source of valuable information. | SD | D | N | A | SA |
| 9. My friend frequently presents a view different from mine. | SD | D | N | A | SA |
| 10. I feel that my friendship with her has positively affected my test performances and course grades. | SD | D | N | A | SA |
| 11. Through my relationship with my friend, I am able to gain a broader view of things. | SD | D | N | A | SA |
| 12. Because I have gained broader perspectives through my friendship, I feel that I have changed as a person for the better. | SD | D | N | A | SA |
| 13. I feel that my friendship with her facilitates my intellectual growth. | SD | D | N | A | SA |

Please turn to Page 4 and continue.

APPENDIX C

Page 4

Please read the following paragraphs. Take some time to think about these relationships. When you are ready, a researcher will ask you a few questions.

Janice and Lauren

Janice and Lauren are junior Biology majors at the College. They have been close friends for over a year, having met as first year students in an introductory literature course. They socialize together often, either alone or with mutual friends. This semester they share one class and meet to study once a week for 2 to 3 hours. When they meet to study, they discuss lab procedures, or review lecture notes, or work through problem sets. Janice and Lauren share information about their papers, tests, lab reports, and other assignments to get advice and encouragement from each other. Both women feel that this aspect of their friendship is very valuable because it increases each woman's confidence in her academic abilities.

Patricia and Sandra

Patricia is a senior Economics major and Sandra a senior Poli Sci major. The two women met as first year students playing on the College's Women's Soccer team. They have many of the same friends, interests and social activities. Each considers the other a very close friend. Patricia and Sandra frequently meet for lunch or coffee. Their conversations are usually peppered with tales of happenings in their classes, news about their mutual friends, and personal plans, but both women feel that the real worth of their talk is when they discuss political issues, current events, and when they "try out" on each other a theory covered in class. Sandra and Patricia view these conversations with each other as intellectually energizing, challenging and risk-free.

Please let the researcher know when you are ready to answer his/her questions.

APPENDIX D

All	Thoughtfulness	Q1			Total
		Worldliness	Passion	Questionables	
Raw	110	54	196	20	380
%	29	14	52	5	/
Seniors (7) (15)*					
Raw	13	10	30	8	61
%	21	16	49	13	16**
Juniors (16)(38)*					
Raw	37	20	73	12	142
%	26	14	51	8	37**
Sophomores (20)(47)*					
Raw	60	24	93	0	1
%	34	14	52	/	49**
All	Thoughtfulness	Q2			Total
		Worldliness	Passion	Questionables	
Raw	133	67	170	21	391
%	34	17	43	5	/
Seniors (7) (15)*					
Raw	17	15	30	2	64
%	27	23	47	3	16**
Juniors (16)(38)*					
Raw	49	21	72	6	148
%	33	14	49	4	38**
Sophomores (20)(47)*					
Raw	67	31	68	13	179
%	37	17	38	7	46**

* (# Participants) (% of all participants)

** % of total participant responses

APPENDIX E

“intellectual”		Q3 “academic”		“personal lives”	
73		5		258	
19%		15%		66%	
Total words = 388					
examples:					
issues	(14) 4%	classes	(28) 7%	friends/others	(37) 9%
books	(10) 3%	course work	(11) 3%	family	(28) 7%
sexuality	(7)				college
experiences	(5)	relationships	(24)		
romantic/sexual	6%				
values/beliefs	(5)	professors	(3)	men	(16) 4%
		exams	(2)	sports	(9)
		stress	(2)	women	(2)

APPENDIX F

positive	Q4 Role in Intellectual Growth		?
	null, equal	negative	
234	6*	6	4
75%	2%	2%	

Total Words = 312

* equal (2)
mutual
partners (2)
symbiotic

Most Frequent

challenge (12)	4%
encouraging (13)	4%
informative (14)	4%
helpful (12)	4%
stimulate (10)	3%
supportive (23)	7%

"Practical"

books
computers
conversation
discussion (2)
edifying
exchanges (4)
proof-reader (2)
resource (4)
sounding-board (6)

Total = 22 = 7%

APPENDIX G

positive	Q5 Role in Academic Growth		questionable
	null, equal*	negative	
224	21	18	17
81%	8%	7%	

Total Words = 275

* equals
irrelevant
marginal
mutual
oblivious
random
reciprocal
unimportant

Most Frequent

advice (8)	3%
encouraging (18)	7%
helpful (22)	8%
relaxing (6)	2%

Questionable

competition (5)
emotional
friendly (5)
independent
parent
purging
time consuming
touchy

"Practical"

cheering
comfort
confidante
confidence booster (5)

APPENDIX G (continued)

supportive (34)	12%	console emotional encouraging (18) guidance hopeful listener nurturing reaffirming reassurance (2) supportive (34) sympathetic Total = 70 = 25%
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APPENDIX H

		Scaled Responses		N	A	SA	A + SA
		SD	D				
1	Positive effect on course understanding	1	4	8	22	8	70
2	Safety	0	0	2	7	34	95
3	Confidence in intellectual abilities	0	1	3	13	26	91
4	Intellectual independents	1	0	1	6	35	95
5	Risk free-intellectual safety	0	1	1	15	26	95
6	Friend respects intelligence	0	0	1	11	31	98
7	Encourages perspective	0	2	7	15	19	79
8	Source of information	0	0	4	11	28	91
9	Different view	0	7	7	25	4	67
10	Positive effect on grades, tests	2	7	17	13	4	39
11	Wider perspective	0	0	3	18	22	93
12	Positive change in self	0	0	6	15	22	86
13	Facilitates intellectual growth	0	0	3	18	22	93

Notes

¹Students were recruited from classes other than my own.

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State Funding for Higher Education

The Sisyphean Task

And then I saw Sisyphus, who had difficult pains
Pushing a monstrous stone up with both of his hands.
And indeed he made a leaning effort with hands and feet
To push the stone up the crest. But when it was about
To go over the top, then it turned back down with its force;
The shameless stone rolled on down again to the plain.
Then he pushed it back again, exerting himself, and the sweat
Flowed off his limbs and dust rose up around his head.

Homer, *Odyssey*

In Homer's *Odyssey*, the story is told of Sisyphus, the Greek god who was banished to Hades to serve out an eternal punishment. Sisyphus — meaning “very wise” in Greek — was ordered to serve out his days in Hades by rolling a stone up and over a hill. Sisyphus

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was never able to accomplish this task; as soon as he had rolled the stone to the verge of the summit, the weight of his load caused it to fall back down upon him. The stone gathered momentum as it rolled down the hill where Sisyphus, weary from his labors, was forced to begin again the journey back up the hill [15].

Myths reflect and express human experiences. As implausible as myths may appear, they nevertheless help to narrate events from ages past. They also help to illuminate current experiences. The power of myths, as the sociologist John Meyer [32, p. 75] notes, is that "the effects of myths inhere, not in the fact that individuals believe them, but in the fact that they 'know' everyone else does, and thus that 'for all practical purposes' the myths are true."

State funding for higher education, and the subsequent impact of funding decisions upon students and families, is currently surrounded by its own myths. In many respects, the myth of Sisyphus provides a descriptive perspective of the state environment with respect to publicly funded higher education systems. A heavy ball indeed has been dropped on state policymakers. A number of significant trends have converged which place extreme demands on states to meet the funding needs for higher education. The most significant of these trends include: competing demands for state funds, declining federal commitment to student financial aid, sluggish state economies, declines in disposable family income, and increased demand for postsecondary education [7, 14]. Like Sisyphus, many states find themselves struggling in a heated environment where — with great effort, sweat, and political dust swirling about their heads — they attempt to make difficult funding decisions which leave unaltered the basic role and mission of higher education as well as the important values of student access, choice, and educational opportunity.

State governments are by far the largest source of revenue for public institutions. Between FY 1980 and 1992, the estimated federal share of higher education expenditures declined from 18% to 14%. In FY 1989–90, state government appropriations, grants, and contracts accounted for 41.7% of the current fund revenues for public colleges and universities. In contrast, federal government appropriations, grants, and contracts accounted for only 10.3% while tuition and fees accounted for 15.5% [35]. Of those federal expenditures, the largest postsecondary federal programs allocated funds for student financial assistance and the Guaranteed Student Loan (GSL) program. In constant dollars, federal student financial assistance and GSL program dollars increased only 2.8% from FY 1980 to 1992 [36].

States are not the only entities being saddled with a Sisyphean load. Students and their families have also increasingly been called upon to

shoulder a greater burden of college expenses. The shift in the responsibility for financing higher education is startling. It is estimated that students and their families now pay approximately 142% more when compared to their level of effort from 1980.¹ This contrasts to an increase of 72% for the federal government and 81% for state governments during the same period [34]. The costs borne by students and families for financing higher education, in the form of tuition payments, have increased steadily from 34.4% in 1979 to 43.9% in 1992 [34]. As the student and family responsibilities for financing higher education have increased, so too has the loan debt of students. Because the major portion of all student aid takes the form of loans, student borrowing has increased as tuition and fees have increased. At Indiana University, for example, student borrowing jumped almost 38% in FY 1993–94 in response to an 8% increase in tuition [4]. In addition, changes in the demographic characteristics of students and families, especially age and family structures, have shifted family responsibilities for financing higher education. Fewer students, even those of traditional age, have parents who can afford to help pay for the dramatic increases in the costs of higher education [20]. As St. John [39] notes, the lack of coordinated federal and state policies for funding student aid and institutional subsidies has accentuated the financial pressures facing college students, their families, and postsecondary educational institutions. In this study, however, we focus only on state policies and funding decisions.

Continuing with our use of myth as a metaphor for the current higher education policy environment, we suggest that the discussion and debate surrounding the market model of higher education financing has been elevated to almost mythic proportions. State legislatures across the country have been examining proposals that would abandon the subsidized, lower-cost public tuition model in favor of a high tuition-high financial aid model [30]. Individuals who argue for a high tuition-high aid model for public colleges and universities suggest that the higher costs more accurately reflect the actual costs of attending institutions. In addition, the costs of higher education are more equally distributed between students based on ability to pay; students who can pay more for their education will pay more. Those students who are unable to pay the entire costs of their tuition would receive financial aid to help defer their costs [5]. In contrast, opponents of the market model suggest that the free market is not the way to finance higher education. They see higher education as a public good deserving of substantial subsidies. Opponents also argue that higher tuition charges would affect public perceptions of affordability and thus negatively impact educational access [44]. Both arguments have received a great deal of attention, yet little evidence ex-

ists regarding the influence of either position on states, students, and families. The market model appears to be another myth in the making.

Objectives

This article will examine the myths of state higher education financing mentioned above. Specifically, using data from 50 states, this article explores the following questions:

1. To what extent do the demographic, resource, political values, and policy making characteristics of states explain the current state funding allocation decisions for public institutions and for state financial aid programs?
2. To what extent are state policy decisions regarding the following state policies linked or coordinated: appropriations for public colleges and universities, state financial aid programs, and the setting of tuition rates at public colleges and universities? Is there evidence of a market model or other approaches to linking state financial aid and tuition policies at public postsecondary institutions?
3. Are state characteristics, attributes of the postsecondary education system, and state financial resources in each state (e.g., characteristics of higher education sectors and state economic health) associated with trends identified in questions 1 and 2 above?

State Financing Trends

The trends converging on higher education that make the financing environment so precarious can roughly be placed into one of two classifications: economic trends and public policy trends. These two broad categories are admittedly artificial and tend to categorize and separate two interconnected and dynamic phenomena. They are useful, however, as conceptual tools which help to focus the discussion.

Economic Trends

One of the most serious trends faced by states is the simple fact that state revenues have failed to keep up with budget projections. In 1992 the total fiscal shortfall among states was estimated to be \$5.8 billion. This figure excludes the budget shortfall for California, which was estimated to be as high as \$2.2 billion [29]. The drastic shortfalls of the early 1990s have moderated as the national and state economies have improved. Indeed, whereas 35 states were forced to reduce their enacted budgets in 1992 to meet revenue shortfalls, 10 states were predicted to

reduce their enacted budgets in 1994 [12]. Nonetheless, given the recent unpredictable nature of the economy and state spending, many structural, long-term problems still exist which make predictable and stable state appropriations to higher education and other state programs uncertain.

Similar to budget shortfalls at the state level, students and families have seen their purchasing power erode. Between 1981 and 1993, tuition and fee increases at public institutions exceeded Consumer Price Index (CPI) increases by an average of 5% [33]. During this approximate period, the average annual increase in tuition costs at public institutions was roughly 10% [9]. In general, tuition increases have outpaced increases in family disposable income increases [13, 18]. Disposable personal income per capita and median family income (in constant 1992 dollars) have remained stable with no appreciable increase throughout most of the 1990s and actually declined in 1991–92 [43].

The burden of financing higher education has increasingly fallen on students and their families. From FY 1983 to 1992, the total average cost for an undergraduate student to attend a public university rose 22.8% (in constant dollars) from \$5,006 to \$6,149. At the same time, however, the median family income rose only 6.4%, from \$34,795 to \$37,027 [43]. During the mid- to late 1980s, moreover, student tuition charges at public colleges and universities increased rapidly so that public sector increases outpaced those at private institutions [40]. This shift in the responsibility for financing higher education may reflect a general public feeling that higher education is more a private benefit than a public good.

Sharp tuition increases at public institutions represent a rather simple way through which state governments and higher education institutions can offset revenue shortfalls. "The math is straightforward. If tuition defrays one-third of instructional costs, states can freeze their appropriations and pay for an inflation-matching 3% increase in spending with a 9% increase in tuition" [41, p. 9].

Public Policy Trends

Economic trends are not the only factors that affect higher education financing. As a result of lean budgets, state policymakers have been forced to make difficult spending decisions and, in the process, clear policy choices. The proportion of state budget allocations going to higher education has been declining steadily since FY 1977–78 [18]. For example, state tax fund appropriations for higher education operating expenses as a percentage of personal income have declined since FY 1978–79. This decline continued in FY 1993–94, when the appropria-

tion of state tax funds for operating expenses was \$7.96 per \$1000 of personal income (compared to \$11.22 per \$1000 in 1978–79), an overall decline of 29.1%. This decline occurred in all 50 states over the fifteen-year period.

States have also redirected state funds to other needs; appropriations have been increasingly diverted away from higher education to spending priorities such as K–12 education, Medicaid, transportation, and corrections. Over the last five years, for example, Medicaid and corrections spending have been assigned higher budget priorities than other state programs [34]. Medicaid alone has increased its share of state expenditures from 10% in FY 1987 to 17% in FY 1992 [11]. In fact, in FY 1990, Medicaid surpassed higher education as the second largest component of state expenditures, second only to state spending on K–12 education [11]. In addition, either by choice or because of mandatory spending requirements, many states have failed to exempt higher education from budget cuts to the same extent as other programs. In 1992 a survey of the National Association of State Budget Officers identified four state programs as being more likely to be exempted from budget cuts: AFDC, K–12 education, Medicaid, and corrections [29]. Because higher education has not been exempted from budget cuts, its share of public revenues has steadily decreased. In short, higher education has, of late, found itself situated at the bottom of the “fiscal food chain” [42, p. 6].

As state general appropriations to higher education have been under pressure, so too has state support for student financial aid [25]. Because of state budget shortfalls and/or increased applications for state scholarship programs, states have had to hold steady or reduce the size of their student financial aid awards [7, 23]. Many low-income students are now finding themselves with no affordable college alternatives. There is evidence that middle-income students are increasingly attending lower cost public institutions, and that the proportion of low-income students attending four-year colleges and universities is declining [39].

Conceptual Framework for Analysis of Trends

Three lines of inquiry form the conceptual framework upon which our findings are interpreted. The first line of inquiry draws upon the works of Hearn and Longanecker [22]. These authors have examined shifts in state assistance to public colleges and universities and state support for student financial aid programs. Hearn and Longanecker [22] argued that the current broad-based strategy to ensure access for all students has resulted in the poor use of public funds. The low tuition, low financial aid strategy pursued by most public colleges and universities provides sub-

sidies to all students regardless of their need for such subsidies. By keeping the cost of a public education artificially low, subsidies are provided to middle- and high-income students at a time when there are not enough financial aid resources to provide grants to low-income students. The authors suggested that by raising tuition costs at public institutions to levels that come closer to the actual costs of production, state resources could be freed to provide more financial aid to needy students. Proponents of this approach have often described it as the high tuition-high aid strategy.

Hearn and Longanecker [22] acknowledged that there are a number of unknowns in this approach, including uncertainty as to whether state governments will redirect funds saved by reducing state appropriations to higher education institutions and allocate them to state student aid. More recently, Lopez [30], Griswold and Marine [16], and St. John [39] have examined some of the shortcomings of the high-tuition-high-aid strategy as enacted in the state of Minnesota. Despite the interest in this framework, this study is the first systematic national examination of the links between state appropriations to public institutions, state financial aid programs, and public institution tuition levels and some of the underlying relationships.

Gumport and Pusser [17] provide a separate perspective on dimensions of the market model. They critiqued current shifts to reducing state appropriations to public institutions in California. These reductions, they have argued, and the resulting large increases in tuition levels at public colleges and universities in California, have led to the privatization of public higher education. In essence their analysis in California indicates that state policymakers are pursuing high tuition advocated in the market model but failing to provide high student financial aid. As the findings from our research will show, the rhetoric of the market approach is also being advanced in other states by policymakers, but as in California, adequate state aid is not forthcoming. If many states are reducing their level of commitment to state appropriations without a concomitant increase in support for state financial aid programs, Gumport and Pusser's critique can be employed beyond the state of California.

The third body of work provides a deeper understanding of the state factors that influence state funding policies for higher education. Leslie and Ramey [28] argued that individual state economies and sociopolitical climates strongly influence state funding of higher education. Similarly, Layzell and Lyddon [25] identified environmental factors (historical, political, economic, demographic), sociopolitical factors, governance and regulatory patterns, and funding approaches as being important elements of the overall milieu in which state funding for higher education

occurs. More specifically, these elements include the following: state leadership and partisan political activity, the bases of the state's economy, the state's historical relationship with higher education, the strength of various interest groups including the higher education sector, the existence of other compelling state interests (for example, Medicaid, road maintenance, prison construction), and state demographics.

Methods and Techniques

Data Collection

Data for this study were gathered from three sources. A data base was constructed using primary and secondary sources. For each of the 50 states, variables entered in the data base included: classificatory information on state governing boards, economic indicators, financial aid appropriations, tuition rates, enrollment data, a measure of dominant political ideology, and state appropriations and general expenditures. Secondary data sources included in the data set include: *Grapevine* data (1990 to present),² annual surveys of the National Association of State Scholarship and Grant Programs (NASSGP)[8, 37, 38], selected items from a recent SHEEO survey of state financial aid policies [26], and data from *State Profiles: Financing Higher Education, 1978 to 1993* [19] were used to describe state economic conditions, and information on the tax capacity and other economic indicators for each state. Information was also gathered on the dominant political values in each state using senatorial voting records from data collected by the Americans for Democratic Action (ADA)[1, 2, 3].

In addition to secondary data, two surveys containing a total of 50 items were created. Content validity of the surveys was established by soliciting critiques from the staffs of state governing boards and directors of state scholarship programs. The surveys covered the following topics: state appropriation and budgeting approaches; linkages between institutional appropriations, state aid appropriations, and the tuition policies of public institutions; state level cost containment strategies; state policy goals; and state financial aid policies. All questions related to state appropriations and budgeting mechanisms for institutions, cost containment mechanisms, and state policy goals were sent to the SHEEO in each state. The surveys covering financial aid policies were sent to the director of state financial aid programs in each state. After the first round of surveys were returned, a second round of surveys and new cover letters were sent to all nonrespondents. In addition, telephone and fax contacts were made with nonrespondents. These strategies resulted

in a response rate of 84% among SHEEOs and 90% among the directors of state financial aid programs. We received usable surveys from 42 state SHEEOs and 45 state aid directors. For data we derived from *Grapevine* and other sources, data were available for all 50 states.

The third data source included in-depth telephone interviews with SHEEOs, state financial aid directors, and other policymakers and analysts in selected states. Because of the unique policy activities underway in certain states, the states of Oregon, Washington, and Indiana were selected for this more detailed investigation. The intent of the interviews was not to provide an in-depth comprehensive study of state policy development, but rather to use interviews to help illuminate and extend the results of the quantitative analyses. Once these three states were selected, a snowball sampling technique [6] was used to identify relevant policymakers and policy analysts to contact. We started with SHEEOs and state aid directors in each state and asked them whom else we should contact. Additional interview participants included state budget directors, influential legislators, institutional presidents and other higher education officials who were especially active at the state level. Some of the individuals we interviewed requested anonymity. Because of this we elected to keep the names of each of these respondents confidential. Titles of all respondents are provided in Appendix A.

Data Analysis

Data collected included nominal, ordinal, and interval variables. Both descriptive and inferential analytical techniques were used. Frequencies were used to reveal general funding and public policy trends. CROSS-TABs, regression analyses, and exploratory factor analyses were also used to examine the relationships among variables. In most cases, when we employed correlational or inferential statistical procedures, we used only same year data for our independent and dependent measures. For example, when using stepwise multiple regression to identify predictors of state appropriations for public sector colleges and universities in 1992, we used only state tax data and other funding data from FY 1992. If we included previous year data, especially state appropriations for institutions or financial aid allocations, these variables dominated the regressions and dramatically reduced the effects of other independent variables.

Exploratory factor analysis was employed for two reasons. It was used as a data reduction technique to determine if there were underlying factors, composites of several variables, which could be used to reduce the number of independent variables employed in our analyses. As will be discussed in the results section, the results from the regressions were not very useful, so we also used exploratory factor analysis as another

method for searching for underlying relationships among the criterion variables of interest.

Variables for each state included in the analyses utilized in this study included the following measures:

1. Total enrollments in public and private institutions (entot90, entot91, entot92).
2. Financial aid appropriations (faapp90, faapp91, faapp92).
3. Appropriations to public four-year institutions (stapp90, stapp91, stapp92).
4. Average tuition levels at four-year public colleges and universities (tlpub90, tlpub91, tlpub92).
5. State tax capacity (taxcap90, taxcap91, taxcap92).
6. State tax revenues (taxrev90, taxrev91, taxrev92).
7. State tax effort (taxeff90, taxeff91, taxeff92).
8. State support for public elementary and secondary schools, described as a competing priority (cpeduc90, cpeduc91, cpeduc92).
9. State support for Medicare, described as a competing priority (cpmed90, cpmed91, cpmed92).
10. State voting average recorded as the average "Liberal Quotient Score" for the years 1989, 1991, and 1993 (voteavg).³
11. State voting rank expressed in terms of a quartile score representing conservative to liberal senate voting patterns for the years 1989, 1991, and 1993 (voterank).
12. State consideration of adopting a market model approach to public higher education (v006).
13. The extent to which states have developed formal linking, or coordinating mechanisms between tuition levels at public institutions and state appropriations for financial aid (v023).
14. The extent to which a series of state initiatives to maintain the affordability of postsecondary education might be linked to state appropriations for student financial aid including:
 - a. tuition prepayment plans (v025a);
 - b. tuition savings plans (v025b);
 - c. state-based work study programs (v025c);
 - d. loan forgiveness programs (v025d);
 - e. community programs with tuition benefits (v025e);
 - f. merit-based scholarships (v026f); and
 - g. Taylor/Eugene Lang Programs (v027g).
15. The extent to which the value of the average state financial aid award has declined, remained stable or increased during the past three years (v028).

In addition, as previously noted, we used factor analysis to reduce the number of independent variables. These factors are described in the next section of the article.

We carefully analyzed data from the telephone interviews looking for two types of insights. First, we were searching for emerging themes not evident from the statistical analyses. In addition, we were looking for statements and explanations that would further refine and expand our understanding of the relationships evident in the statistical analyses. While no emergent themes were evident in the interviews, they were a useful vehicle for extending our understanding of state policymaking environments and why we failed to find strong statistical relationships among the variables we selected.

Results

Statistical Findings

The results of our analyses represent the first effort to systematically explore relationships between state support for student financial aid, public institution appropriations, and public institution tuition levels in all 50 states. The findings reveal that unmet student financial need has been increasing in all states. Except for informal efforts in isolated states no systematic efforts are underway to maintain affordability at public colleges and universities by linking state appropriations for institutions and for student aid to public tuition rates. We begin our exploration of the results with an overview of descriptive findings. Only 26.8% of the responding states indicated that discussions were underway in their states to adopt a market approach to tuition at public sector institutions and state financial aid programs. But many more state policymakers indicated that they attempt to formally or informally link tuition levels at public institutions with state financial aid awards.

TABLE 1
"Market Method" of Pricing

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
No	30	58.80	73.20	73.20
Yes	11	21.60	26.80	100.00
Missing	10	19.60	0.00	
Total	51	100.00	100.00	
Valid cases:	41			

TABLE 2
Relationship Between Tuition Rates and State Financial Aid Policies

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
0	1	2.00	2.30	2.30
Little relationship	23	45.10	52.30	54.50
Less formal relationship with moderate pressure	11	21.60	25.00	79.50
Less formal relationship with strong pressure	5	9.80	11.40	90.90
Very formal relationship/ Not permitted to raise tuition	0	0.00	0.00	90.90
Very formal relationship/ Aid raised in direct proportion	4	7.80	9.10	100.00
Missing	7	13.70	0.00	
Total	51	100.00		
Valid cases:	44			

When asked about the relationship between state financial aid allocations and state policies for setting tuition at public colleges and universities, slightly more than 77% of the state financial aid directors responding reported that there was "little relationship" or that the relationship was "less formal with only moderate pressure" for linkage between the two areas of policy making. Approximately 11% of the aid directors reported a "less formal but strong relationship" between tuition-setting policies of state colleges and universities and the state's ability to increase state financial aid. Only 9.1% of the respondents indicated that there is a very formal relationship between the setting of tuition levels at public institutions and appropriations for state financial aid. These findings suggest that many states monitor the relationships between college costs in the public sector and state aid, but that there are few formal linkages between the tuition setting policies of public institutions of higher education and state financial aid policies in each state. Additional survey items support these observations.

We asked state financial aid directors to indicate whether the average student aid award had declined, remained stable, or increased. Fifty-nine percent of the states responding reported that their financial aid awards had remained constant or declined. In the face of significant increases in the tuition levels of state institutions during the 1990s, these results not only suggest that states are not moving toward a market approach, they also suggest that states are not formally linking state financial aid to state tuition levels.

TABLE 3
Response to the Number of Applicants for State Financial Aid

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Reduced Funding	4	7.80	14.80	14.80
No Increase in Funding	3	5.90	11.10	25.90
Increase in funding, but average award has declined	2	3.90	7.40	33.30
Increase in funding, but award has remained the same	7	13.70	25.90	59.30
Missing	24	47.10	0.00	
Total	51	100.00	100.00	
Valid cases:	27			

We also ran a *t*-test comparing the average tuition levels at public institutions in each state and state financial aid appropriations. The results revealed no significant relationships between these two variables. If a preponderance of states were actively attempting to link public tuition levels and state financial aid funds, we would have expected to find a relationship among these two variables.

Following these descriptive analyses we ran a series of regression analyses to determine if we could identify independent variables that might help to predict the following criterion variables:

1. levels of state appropriations to public four year colleges and universities;
2. levels of state appropriations for state financial aid;
3. dominant political values in each state; and
4. the linking of state policies for state appropriations to public sector institutions and state financial aid appropriations.

TABLE 4
Relationship Between Average Public Tuition and State Financial Aid Appropriation

	TLPUB90	TLPUB91	TLPUB92
FAAPP90	-0.1417 50 $p = 0.326$	-0.0517 50 $p = 0.722$	0.0150 50 $p = 0.918$
FAAPP91	-0.1350 50 $p = 0.350$	-0.0506 50 $p = 0.727$	0.0088 50 $p = 0.952$
FAAPP92	-0.1408 50 $p = 0.329$	-0.0537 50 $p = 0.711$	0.0028 50 $p = 0.984$

As we have already noted in the methodology section, because of the small sample size we were limited in the number of independent variables we could include, and regressions were sometimes used in an exploratory fashion. Appropriations were analyzed separately for 1990, 1991, and 1992. Our efforts to identify predictors of the adoption of a market model or any systematic linkages between state financial aid and state tuition were limited.

Layzell and Lyddon [25] concluded that state tax capacity and other characteristics of the state have not proven to be good predictors of state appropriations to public institutions. They noted that history and past appropriation levels are the best predictors of state appropriations to higher education. In a recent article Hearn and Griswold [21] posit that the dominant political values found in each state might also influence policy development for public higher education. Based on these findings we included state level data on: tax capacity, tax revenues, tax effort, appropriations to Medicare, appropriations to K-12 education, and measures of the dominant political values found in each state. We also included total enrollments in public institutions. For the most part our regression results yielded few significant relationships. Enrollments in public sector institutions were significant predictors of state appropriations for all three years, but this is intuitive; the larger the state system, the larger the state appropriation. Previous levels of state appropriations were also significant for all three years. Surprisingly, however, these were the *only* predictor variables that were significant.⁴ The absence of any other significant relationships reinforces Layzell and Lyddon's observation that tradition and past appropriation levels are the best predictors of future appropriations.

We then went one step further, conducting a series of exploratory factor analyses including measures of state wealth, total enrollment in public and private institutions, state appropriations to state institutions and student aid, and competing appropriations to Medicare and K-12 education. Our purpose was to see if we could uncover any structural relationships among any of our variables.

We first ran an exploratory factor analysis that attempted to identify underlying associations among the variables that characterize the underlying wealth and competing financial commitments of the states. As is evident in Table 5, a surprising level of consistency was found among the factors that emerge for each of the three years. Enrollment in public sector institutions, financial aid appropriations, and state appropriations to public sector institutions form the most robust factor in two of the three years. In all but one of the three years, none of the competing priorities or measures of state wealth load with either state appropriations

or financial aid appropriations. We then used the three factors as independent variables and used state appropriations as the dependent variable, but the results were not significant.⁵

Our efforts to predict state financial aid were only slightly more successful. Because of the small *N* we were again limited in the number of independent variables we could include. Again we used a series of regressions in an exploratory manner, searching for a constellation of variables that aided us in predicting the level of state financial aid appropriations. In many respects, nonsignificant findings are more illuminating than those that were significant. For example, our measures of dominant political values were not significant. In addition, we conducted some analyses in which we included average state tuition levels at public insti-

TABLE 5
Factor Analysis of State Characteristics & Funding Priorities

ROTATED FACTOR MATRIX FOR 1990:			
	Factor 1	Factor 2	Factor 3
FAAPP90	0.94797	0.0681	-0.04815
ENPUB490	0.93992	-0.02766	-0.15075
STAPP90	0.91423	0.06198	0.10171
TAXREV90	0.17771	0.74900	0.57272
CPEDUC90	0.26238	-0.73801	0.07868
TAXEFF90	0.17554	0.73751	-0.05082
CPMED90	0.2055	0.16376	-0.84777
TAXCAP90	0.17809	0.57385	0.63983
ROTATED FACTOR MATRIX FOR 1991:			
	Factor 1	Factor 2	Factor 3
FAAPP91	0.94911	0.13136	-0.04218
STAPP91	0.94857	-0.00186	0.05487
ENPUB491	0.93571	-0.02479	-0.20732
TAXEFF91	0.18959	0.77029	0.03736
CPEDUC91	0.25475	-0.7627	0.10589
TAXREV91	0.15141	0.74328	0.56819
CPMED91	0.28932	0.10967	-0.83749
TAXCAP91	0.15328	0.54112	0.61237
ROTATED FACTOR MATRIX FOR 1992:			
	Factor 1	Factor 2	
ENPUB492	0.94977	0.01305	
FAAPP92	0.94032	0.11772	
STAPP92	0.86107	0.00179	
CPMED92	0.62858	-0.08877	
TAXREV92	-0.06781	0.92263	
TAXCAP92	0.0877	0.85016	
TAXEFF92	0.08227	0.67489	
CPEDUC92	0.08347	-0.54857	

tutions as independent variables. We hypothesized if state financial aid appropriations were linked or coordinated with the setting of tuition levels at public institutions, then average tuition levels at public colleges and universities should be associated with state financial aid appropriations in our regressions. These relationships, however, were again not significant. In some runs we included variables that measured the self-reported effort of states to link financial aid appropriations to tuition levels at public institutions. We also included other variables that assessed the extent to which states were moving toward a market model or attempting to link tuition and state aid policies. The results of these analyses were also not significant.⁶

One set of analyses (see Appendix A), however, did reveal some interesting patterns. We sought to identify predictors of state financial aid appropriations for 1990, 1991, and 1992. Interestingly, there was one significant predictor, and the association was positive. The predictor variable was the size of state appropriations. States that spend more on subsidies for their public system of colleges and universities also spend more for financial aid appropriations. This finding is not simply the result of total enrollments, because previous analyses had found this not to be a predictor.

We then ran another set of analyses with the same set of variables — excluding state appropriations to public institutions (stapp) — to determine if there were additional, more subtle relationships among some of the other independent variables. Tables A-1 through A-3 report these results with state appropriations to institutions included and with this variable excluded. In two of the three analyses, 1991 and 1992, the competing priority of Medicare reached the 0.05 level of significance and it was close to being significant in 1990. In 1992, state tax capacity was also significant.

Although the predictors of state appropriations for state financial aid programs are not robust, there is a consistent pattern of predictors that merit further consideration. For 1991 and 1992 tax capacity and/or Medicare appropriations were correlated with financial aid appropriations. It is plausible that state financial aid appropriations, when compared with state appropriations to public colleges and universities, are viewed as more discretionary expenditures. Whereas state wealth and competing priorities exert no impact upon institutional appropriations, they may influence financial aid appropriations. It is possible that public policymakers perceive more constraints on their ability to fund financial aid appropriations. Given the long history of state support of public institutions and the relatively short history of state financial aid programs, perhaps we should not be surprised by these results.

Finally, in an attempt further to explore state policies related to state tuition and financial aid policies, we used exploratory factor analysis on survey results from state financial aid directors. We asked state financial aid directors the extent to which a variety of financial aid programs, ranging from tuition prepayment and savings plans to merit-based scholarships and Eugene Lang ("I Have a Dream") Programs, are taken into consideration when determining the level of funding for state financial aid programs. Factor I indicates that loan forgiveness plans, state-based work study programs, and merit-based scholarships are viewed as similar programs by state policymakers when considering state funding for financial aid programs. Each of these programs is a standard program, although not commonly used in all 50 states; one or more of them are often implemented in individual states.

The second factor is comprised of the following variables. Variable 028 asks state aid directors to indicate the extent to which the average state financial aid award for each student has declined, remained stable, or increased. The higher the value assigned by the aid director, the more likely that average state aid awards have at least remained stable or increased. Community service with tuition benefits accounts for the next largest proportion of variance in this factor. Finally, state aid directors were asked about the extent to which there is a formal relationship between state financial aid appropriations and increases in public college tuition costs (v023).

The last factor includes only one variable, consideration among state policymakers of adopting a market model of pricing and provisions for state financial aid. Variable 006 asked SHEEOs if their states were considering adopting a market model for tuition and aid policies.

Given the small size of the sample and the nature of the three factors, we are cautious in our interpretation of these factors. It is possible, how-

TABLE 6
Factor Analysis of Market Model Variables

ROTATED FACTOR MATRIX FOR 1990:			
	Factor 1	Factor 2	Factor 3
Loan Forgiveness programs	0.94797	0.0681	0.04815
State-based Work/Study programs	0.78035	-0.32871	0.32235
Merit-based scholarships	0.66287	0.37117	-0.1006
Increase in # of students applying for aid?	0.16126	0.79872	-0.10196
Community/public service	-0.04674	0.68522	0.01556
Relationships between tuition and state financial aid?	0.34081	0.55253	0.52585
"Market method" of pricing?	0.01777	-0.08854	0.91734

ever, that these three factors represent the dominant political issues influencing debates about state support for public institutions and state financial aid programs. Factor I may represent the reemergence of the conservative ideology of self-help in many states. Loans, College Work Study, and merit aid (which might be viewed as rewarding hard work of individual students) are consistent with a philosophy of self-help and with the current argument that students are the principal beneficiaries of advanced education through job mobility and higher income [27, 39].

Factor II could represent states that are caught in the midst of the debate on which direction to take. These states are concerned about the increasing number of students who are applying for financial aid. They are examining the relationship between tuition and state financial aid, and they are also considering new approaches to student aid, such as rewarding students who perform community and public service.

Factor III, then, represents the small number of states that have moved more toward a market model. With the limitations we have already acknowledged, these explanations should be viewed as tentative, but they appear to capture the range of discourse in many states. To some extent the results of our interviews, which follow, support these interpretations of the three factors.

Interview Results

Interviews with participating policymakers in Indiana, Oregon, and Washington help to explain the lack of statistical relationships among the variables we included in our analyses. Their comments demonstrate that a constellation of factors idiosyncratic to each of these states influence higher education policy decisions. The insights gleaned from these policymakers and analysts also suggest that the nexus of tuition, state appropriations, and state aid may not be the most important higher education issue in some states. Furthermore, data from the interviews reveal that concepts like the market model or high tuition-high aid are abstract and not easily defined in the minds of policymakers.

Policymakers and policy analysts in Oregon uniformly indicated that a recently passed statewide initiative (Proposition 5) to limit property taxes was the single most important influence on funding for higher education. Proposition 5 has resulted in deep funding cuts for all of higher education. State appropriations for public institutions and for state financial aid programs have been reduced. Concomitantly, tuition costs have risen, but public institutions have set aside some of the funds from tuition increases to increase the level of institutionally funded financial aid.

When we asked participants if there were any new ideas being introduced to address issues of the affordability of higher education, state tu-

ition policies, or new funding efforts for state financial aid programs our respondents noted that most of the attention has focused on increased institutional productivity and the use of technology and distance education in instruction. In addition, there was talk of finding other new ways to deliver services. These comments provide important insights into policy discussions in Oregon. They suggest that policymakers are focusing their attention on other mechanisms rather than the relationships between tuition, state appropriations, and financial aid, to address concerns about access to postsecondary education.

We also asked policymakers and analysts if there were any efforts currently underway to introduce a market model or to link public institution tuition, state appropriations for public colleges and universities, and state financial aid programs. The responses from participants varied widely. They reveal not only a lack of consensus on this issue but also point out the absence of precision with terms like "high tuition" or "high aid." One policy analyst remarked that Oregon was moving to a "high tuition and low aid" model. This was not the intention of the legislature, he noted, but the state budget left them no choice. State tuition levels and state financial aid, he said, have "become unbundled." Another policy maker said the governor of Oregon was advocating "low tuition and adequate aid," while another policy analyst said that Oregon had a "moderate tuition and moderate aid" strategy.

In the state of Washington, policymakers and analysts attribute funding shortages for higher education to a different set of financial problems. In July 1995 a state initiative (Initiative 601) took effect that limited growth in state spending to an algorithm, which determines state growth by multiplying the rate of inflation by the rate of population growth. Growth in state taxes cannot exceed this figure in any year. This new initiative might not be so troubling for public higher education if the state constitution did not also protect funding for K-12 education. The constitution guarantees that K-12 education is always "first in line" in the state budgeting process. Many policymakers we talked to indicated that K-12 education, followed by increased funding for health care and a new "three strikes and your out" bill recently passed for the criminal justice system, means that higher education is viewed as a more discretionary budget issue in the state.

Like Oregon, state policy analysts and policymakers indicated that the public seems to be more concerned about accountability and cost containment in higher education than they are about implementing a market model or addressing the nexus of tuition, institutional appropriations, and financial aid. Higher education, we were told by some policymak-

ers, was perceived as a "fat cat" and individual institutions were run like "little fiefdoms."

There was little consensus on the relationship between tuition and financial aid at public institutions. Two respondents said that Washington was moving toward a "higher tuition, higher aid" model. Two other respondents chose not to even address the part of our questions dealing with financial aid and focused only on the need to increase state appropriations for institutions. Funding for institutional appropriations is of greatest concern to advocates of community colleges in the state. Only one respondent overtly supported moving to a market model, and nearly all of our respondents expressed a concern that current policy trends could lead to a high tuition and low aid model by default.

The policy environment in Indiana presents a different picture than either Oregon or Washington. On most measures of state effort to support higher education (based upon tax revenues and per capita income) the state ranks very high [19]. In Indiana, however, policymakers note that the state is simply not a wealthy state, per capita incomes are low, and as a result there are serious limits as to how much the state can do to support higher education. Like most states, the amount of funding for higher education as a percentage of the total state budget has been declining.

Unlike in Washington, it is most appropriate to say that in Indiana higher education simply has not been a primary concern of either the legislature or the governor in recent years. While there are occasional criticisms of the teaching loads, graduation rates at some public institutions, and rising tuition costs, these concerns have not captured the attention of state policymakers. With leadership from the governor's office, Indiana has created a financial aid program (the 21st Century Scholars Program) that guarantees that all low-income students who maintain a B average and refrain from using drugs and engaging in other criminal activities will be guaranteed sufficient federal and state financial aid to attend any public institution in the state.

However, there has been little discussion of movement toward a market model of pricing. The Indiana Commission for Higher Education has attempted to link tuition increases at public institutions to increases in student financial aid, but this effort has met with only modest success. Three years ago the Commission asked all institutions to submit their proposed tuition increases a year in advance so that the state could calculate the amount of financial aid that would be needed to maintain access in the state. This request was not heeded by public colleges and universities. The state legislature does informally pressure public institutions to keep their tuition increases at a level that is deemed accept-

able. The state legislature makes it clear that tuition increases that are too large will result in lower state appropriations. What is acceptable, however, is never quite clear, so college and university policymakers play a modified game of "chicken," attempting to increase their tuition as high as they can without incurring the wrath of the legislature.

As in Oregon and Washington, there is no clear consensus on the relationship between tuition and state financial aid in Indiana. Some policymakers describe the state as a "higher tuition, moderate aid" state. Other policymakers point out that the state actually reduced state financial aid three years ago because of increased numbers of eligible students and conclude that the state is becoming a high-tuition, low-aid state. Other policymakers and analysts with whom we talked suggested that there was no relationship between public tuition levels and state financial aid.

Summary

In general, our findings from both the statistical analyses and interviews with policymakers suggest that the much discussed market model, or any direct linkages at the state level between state aid appropriations, state appropriations for public colleges and universities, and tuition levels for public higher education, is indeed a myth. Our findings indicate that few states have enacted policies to link tuition levels at state institutions to the levels of state financial aid available. Equally important, we find little evidence of statewide efforts to develop coordinated state tuition, institutional funding, and state aid policies. The efforts to develop high tuition and high aid strategies, moderate tuition and moderate aid, or low tuition and low levels of financial aid appear to be meager and isolated. Our results reveal no systematic relationships between any of the following: appropriations for public sector institutions, public sector tuition levels, and state financial aid appropriations. We were unable to identify any set of systematic relationships among these important funding issues. These findings do not exclude isolated examples of individual states that have enacted policies to link public sector tuition levels and state aid appropriations. Griswold and Marine [16] have documented such an effort in Minnesota; however, such efforts, however, are the exception rather than rule.

Conversations with state policymakers and analysts help explain our failure to find strong statistical relationships among the variables we considered. In each of the three states we examined, a different set of demographic and legislative factors was offered to explain the current state of funding for higher education. With regards to efforts to linking tuition, institutional appropriations, and state financial aid, the interviews

reveal that there is little consensus among policymakers on this topic. Indeed, policymakers and analysts often described the current relationship between tuition and financial aid with phrases that were contradictory. One policymaker would describe their state as a high-tuition and high-aid state, while another would describe it as a high-aid, low-tuition state. Yet another asserted the state was pursuing a moderate-tuition, moderate-aid strategy. The lack of a common metric for defining these terms is clearly a problem.

Our interviews also reveal that the nexus of tuition, state appropriations, and financial aid may not even be perceived as a critical issue in many states. If Oregon and Washington are illustrative of the higher education policy environment in some states, then accountability, productivity, and cost containment currently attract more attention from policymakers than does the market model or the cost nexus that we have focused on in this study.

Conclusions

In many respects our findings extend the discussions presented in each of these lines of inquiry. Certainly our inability to identify variables other than past levels of funding and the size of the public postsecondary system to explain current state appropriations to public institutions is consistent with previous work on this topic. Our findings raise the possibility that state financial aid appropriations may be viewed as more discretionary expenditures, but our evidence is weak, and this topic needs additional research.

Gumport and Pusser's [17] analysis of the privatization of public higher education provides an important critique of the current policy directions of public higher education. As a total proportion of state budgets, resources are being shifted away from public colleges and universities and not redirected to college students to any significant degree. In light of rising tuition costs, the default policy of many states suggests that higher education is decreasingly perceived as a public good.

Our findings, like those of Griswold and Marine [16] and St. John [39], indicate that the high-tuition-high-aid strategy has not been enacted by many states. This study does not prove or disprove the efficacy of the market model advocated by Hearn and Longanecker [22]. Nevertheless, our findings indicate that Hearn and Longanecker correctly identified possible shortcomings of this approach when they raised the possibility that state policymakers might fail to allocate sufficient state resources to state financial aid programs. The *de facto* policy that is emerging in most states is increasingly higher tuition and modest or low

state financial aid. Indeed, only 30% of the states that responded reported that they had been able to increase their financial aid appropriations enough to keep pace with student demand and rising tuition.

These findings raise interesting questions about the assumptions and operating frameworks being used by state policymakers. State support for public higher education has a long and impressive tradition. It should come as no surprise that state policymakers have maintained their long-standing commitment to institutional support. We raise the possibility that it is time for states to reassess thoughtfully these long-standing traditions. The problem for state policymakers, indeed, for federal and institutional policymakers as well, is that we have reached a point in our history at which higher education has become viewed as a universal right at the very moment when the rising costs of higher education and state and federal budget constraints appear unable to support the expectations of the American public.

The convergence of these developments ought to be of concern for the American public and public policymakers. Until the 1980s, the federal government was the dominant provider of student financial aid. Most of the research and discourse on financial aid focused on federal aid policies [10, 43]. Much has changed since then, states and institutions provide significant amounts of student financial aid. Rising costs, flat family incomes, and small increases in federal and state financial aid have placed both student access and student choice of institutions in jeopardy. McPherson and Schapiro [31] have already documented a shift of both wealthy and middle-class students from private to public colleges and universities. Mortenson [34] suggests that some forms of postsecondary education are rapidly getting out of reach for even lower middle-class families.

If we return to our initial metaphor, federal and state policymakers are adding weight each year to the burden that students and families must bear in order to provide a postsecondary education to our next generation. Their task is indeed becoming Sisyphean. In 1968 Jencks and Reisman [24] observed that American society firmly believed higher education was a social escalator to upward mobility. The gears of the escalator are wearing out.

From an interpretive perspective, the market model might also be viewed as an important myth that has made it easier for state policymakers to consider decreasing their funding for state higher education. The rhetoric of the market model is being used as a justification for reduced state appropriations to public institutions and increased tuition levels in the public sector, but public policymakers have ignored the other part of the market model equation — higher levels of state financial aid. It is

hard to quantify or measure precisely what is meant by terms like "high tuition" and "high aid," or "moderate tuition" and "moderate aid," thus policymakers have a great deal of latitude.

Although the results of our research suggest that most states are not enacting legislation that coordinates public tuition and state aid policies, a few states are attempting to grapple with these issues. Efforts at these states merit additional investigation. Minnesota and Georgia, for example, appear to be swimming against the current public policy tide. Minnesota has attempted to find the proper linking mechanisms between tuition and aid policies. Georgia, through its innovative use of state lottery money, has made a strong commitment to maintain student access to higher education.

Policy discussions and policy research on tuition and financial aid policies must find fruitful ways to engage all of the partners in this loosely coupled aid providers coalition — the federal government, state governments, and colleges and universities. In this era of limited resources, we are unlikely to be able to sustain our longstanding commitment to educational equity and access without developing an integrated set of policies that provide a modicum of consensus and shared responsibility among all the partners for keeping college affordable.

APPENDIX A

Interview Participants:

Associate Director for Government and Media Relations, Higher Education Coordinating Board (Washington)

Associate Vice-Chancellor of Higher Education for Budgets and Fiscal Policy (Oregon)

Dean for Administrative Services, State Board for Community and Technical Colleges (Washington)

Deputy Director for Student Financial Aid, Higher Education Coordinating Board (Washington)

Deputy Commissioner, Indiana Commission for Higher Education (Indiana)

Deputy Director, State Student Assistance Commission of Indiana (Indiana)

Director of Government Relations, University of Washington (Washington)

Director of Oregon State Scholarship Commission (Oregon)

Education Reporter, *Herald-Times* (Bloomington, Indiana)

Executive Assistant to the Governor (Indiana)

Executive Director, State Student Assistance Commission of Indiana (Indiana)

Executive Policy/Legal Assistant, Office of the Governor (Washington)

Member, Commission of Community Colleges (Oregon)

Vice-Chancellor for Governmental and External Public Areas (Oregon)

TABLE A-1

Equation Number 1	Dependent	Variable..	FAAPP90
Block Number 1.	Method:	Enter	
Variable(s) Entered on Step Number:			
1..	STAPP90		
2..	CPMED90		

TABLE A-1 (continued)

3..	CPEDUC90
4..	TAXEFF90
5..	TAXCAP90
6..	TAXREV90
Multiple R	0.82953
R Square	0.68812
Adjusted R Square	0.64134
Standard Error	1.18370

Analysis of Variance			
	DF	Sum of Square	Mean Square
Regression	6	123.65653	20.60942
Residual	40	56.04560	1.40114

F = 14.70904 Signif F = 0.0000

----- Variables in the Equation -----					
Variable	B	SE B	Beta	T	Sig T
STAPP90	0.651466	0.081415	0.761697	8.002	0.0000
CPMED90	0.240714	0.131034	0.171395	1.837	0.0736
CPEDUC90	0.118317	0.139385	0.083653	0.849	0.4010
TAXEFF90	-0.048485	0.169393	-0.038804	-0.286	0.7762
TAXCAP90	0.312827	0.331556	0.184378	0.944	0.3511
TAXREV90	-0.043273	0.255571	-0.040696	-0.169	0.8664
(Constant)	-0.404198	0.930374		-0.434	0.6663

Equation Number 1	Dependent	Variable..	FAAPP90
Block Number 1.	Method:	Enter	
Variable(s) Entered on Step Number:			
1..	TAXCAP90		
2..	CPMED90		
3..	TAXEFF90		
4..	CPEDUC90		
5..	TAXREV90		

Multiple R	0.43598
R Square	0.19008
Adjusted R Square	0.09590
Standard Error	1.90269

Analysis of Variance			
	DF	Sum of Square	Mean Square
Regression	5	36.53383	7.30677
Residual	43	155.67025	3.62024

F = 2.01831 Signif F = 0.0951

TABLE A-1 (continued)

----- Variables in the Equation -----					
Variable	B	SE B	Beta	T	Sig T
TAXCAP90	0.539019	0.518814	0.310939	1.039	0.3046
CPMED90	0.405464	0.206857	0.289523	1.960	0.0565
TAXEFF90	0.136792	0.244591	0.109038	0.559	0.5789
CPEDUC90	0.391420	0.211821	0.272362	1.848	0.0715
TAXREV90	0.015122	0.387876	0.013967	0.039	0.9691
(Constant)	0.092398	1.416459		0.065	0.9483

TABLE A-2

Equation Number 1	Dependent	Variable..	FAAPP91
Block Number 1.	Method:	Enter	

Variable(s) Entered on Step Number:

1..	STAPP91
2..	TAXCAP91
3..	CPMED91
4..	TAXEFF91
5..	CPEDUC91
6..	TAXREV91

Multiple R	0.89932
R Square	0.80877
Adjusted R Square	0.78009
Standard Error	0.90971

Analysis of Variance

	DF	Sum of Square	Mean Square
Regression	6	140.00349	23.33391
Residual	40	33.1029	0.82757

F = 28.19562

Signif F = 0.0000

----- Variables in the Equation -----					
Variable	B	SE B	Beta	T	Sig T
STAPP91	0.755000	0.066360	0.858190	11.377	0.0000
TAXCAP91	0.316331	0.266903	0.152947	1.185	0.2429
CPMED91	0.109138	0.102115	0.074890	1.069	0.2916
TAXEFF91	0.078880	0.148871	0.065020	0.530	0.5991
CPEDUC91	-0.043751	0.109463	-0.031873	-0.400	0.6915
TAXREV91	-0.074591	0.187641	-0.069660	-0.398	0.6931
(Constant)	-0.783093	0.859707		-0.911	0.3678

Equation Number 1	Dependent	Variable..	FAAPP91
Block Number 1.	Method:	Enter	

TABLE A-2 (continued)

Variable(s) Entered on Step Number:

1..	TAXCAP91
2..	CPMED91
3..	TAXEFF91
4..	CPEDUC91
5..	TAXREV91

Multiple R	0.44246
R Square	0.19577
Adjusted R Square	0.10226
Standard Error	1.86330

Analysis of Variance

	DF	Sum of Square	Mean Square
Regression	5	36.34164	7.26833
Residual	43	149.29102	3.47188

$F = 2.09348$

Signif $F = 0.0847$

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
TAXCAP91	0.689500	0.526126	0.325087	1.311	0.1970
CPMED91	0.398255	0.200282	0.296744	1.988	0.0531
TAXEFF91	0.323057	0.270830	0.263644	1.193	0.2395
CPEDUC91	0.284553	0.210806	0.201784	1.350	0.1841
TAXREV91	-0.099054	0.357524	-0.090459	-0.277	0.7831
(Constant)	-0.769254	1.685831		-0.456	0.6505

TABLE A-3

Equation Number 1 Dependent Variable.. FAAPP92

Block Number 1. Method: Enter

Variable(s) Entered on Step Number:

1..	STAPP92
2..	TAXEFF92
3..	CPEDUC92
4..	CPMED92
5..	TAXCAP92
6..	TAXREV92

Multiple R	0.83095
R Square	0.69047
Adjusted R Square	0.64028
Standard Error	1.15331

Analysis of Variance

	DF	Sum of Square	Mean Square
Regression	6	109.7851	18.29752
Residual	37	49.2149	1.33013

TABLE A-3 (continued)

$F = 13.75616$

Signif $F = 0.0000$

----- Variables in the Equation -----					
Variable	B	SE B	Beta	T	Sig T
STAPP92	0.577960	0.080280	0.715970	7.199	0.0000
TAXEFF92	0.041049	0.183351	0.033024	0.224	0.8241
CPEDUC92	0.153157	0.145694	0.107272	1.051	0.3000
CPMED92	0.285101	0.134907	0.209233	2.113	0.0414
TAXCAP92	0.229805	0.359319	0.094539	0.640	0.5264
TAXREV92	0.097577	0.231249	0.082252	0.422	0.6755
(Constant)	-1.476429	1.228307		-1.202	0.2370

Equation Number 1 Dependent Variable.. FAAPP92
Block Number 1. Method: Enter

Variable(s) Entered on Step Number:

- 1.. TAXCAP92
- 2.. CPMED92
- 3.. TAXEFF92
- 4.. CPEDUC92
- 5.. TAXREV92

Multiple R 0.54516
 R Square 0.29720
Adjusted R Square 0.21354
Standard Error 1.70624

Analysis of Variance

	DF	Sum of Square	Mean Square
Regression	5	51.70695	10.34139
Residual	42	122.27221	2.91124

$F = 3.55222$

Signif $F = 0.0091$

----- Variables in the Equation -----					
Variable	B	SE B	Beta	T	Sig T
TAXCAP92	0.958083	0.473566	0.432655	2.023	0.0495
CPMED92	0.616688	0.186554	0.459233	3.306	0.0019
TAXEFF92	0.117312	0.237657	0.096604	0.494	0.6241
CPEDUC92	0.252954	0.204086	0.180899	1.239	0.2221
TAXREV92	-0.244620	0.309907	-0.211301	-0.789	0.4344
(Constant)	-1.627351	1.699972		-0.957	0.3439

Notes

¹Effort is defined as a ratio of the average total family income to average college costs.

²*Grapevine* is a newsletter published six times each year by Illinois State University, Edward Hines is the editor. It reports state level funding for public postsecondary educational institutions. In this study we used data tapes used to produce *Grapevine*, not any of the actual published issues.

³We attempted to assess the dominant political values and ideology in each state by using the conservative to liberal system developed by Americans for Democratic Action (ADA). The ADA ranks the votes of all senators on 20 major legislative initiatives each year. The issues are selected so that they display sharp liberal /conservative divisions (for example assault weapons ban and the confirmation of Clarence Thomas).

Each senator is assigned a "liberal quotient" which represents the percentage of votes cast by each senator in support of liberal policies measured against the total possible 20 votes. Using the "liberal quotient" assigned to each senator by the ADA for votes cast in 1989, 1991, and 1993 Congressional years. The state rank represents a quartile score which we assigned ranging from very conservative (first quartile) to very liberal (fourth quartile). The averages and voting ranks were used to construct variables 10 and 11.

⁴To conserve manuscript space all tables with non-significant findings are not included. All tables are available upon request from the authors.

⁵Tables are available upon request from the authors.

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Higher Education Research and Psychological Inquiry

The study of higher education is open to an array of scholars from diverse scholarly traditions. The purpose of this article is to examine the contributions that psychologists have made to this field in order to identify themes that characterize the knowledge that accrues from psychological inquiry. My interest in this type of exploration results from my own experience as a research psychologist who has been involved in the study of higher education for approximately fifteen years. My discussions here reflect an evolution in my own understanding and approach to the field that resulted both from moving away from the relatively totalising disciplinary culture of psychology to the more eclectic scholarly culture of education, and also the movement toward postpositivism within the social sciences. As I am presenting my thoughts, I use wherever possible metaphors from psychology, beginning with Gilligan's notion of "voice" (1982), and Belenky's notion of "ways of knowing" (1986), and try to articulate what I feel have been psychologists' "voice" and "ways of knowing" higher education.¹

The popularity of Gilligan's (1982) and Belenky's (1986) work on women's "voice" and "ways of knowing" contributed much to a scholarly consciousness within psychology and education in terms of acknowledging the importance of understanding cultural ways of knowing and the implications of these for how we envision higher education. This

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literature suggests that epistemological process is embedded within cultural reality and is acquired and practiced within that context. In our culture, certain ways of knowing have been abstracted, systematized, and labelled "methods of inquiry." These are formalized in terms of scholarly disciplines, sanctioned by scholarly communities, and typically acquired through participation in institutions of higher education. The nature of the epistemological process inherent in scholarly methods of inquiry, much like an implicate order, is expressed in an explicate order in terms of knowledge with epistemological characteristics that reflect that process: a knowledge grammar with particular syntactic and semantic features (Tochon, 1990). These features are also ontological in that they reflect, if you will, "ways of being" within our disciplinary culture, the social and cultural reality of our disciplinary discursive practices. To come to an understanding of my own ways of knowing as a psychologist I use critical self-reflection to identify themes and patterns that emerge from my disciplinary approach to the study of higher education. The article is thus an exercise in critical self-examination, deconstructing the narrative voice I assume in my higher education scholarship to "reveal the backstage" of my disciplinary literature (Tochon, 1992).

Psychologists' Contributions to Higher Education Research

As a research psychologist, my first inclination in considering the contribution that my discipline has made to higher education was to frame the question in terms of a quantitative problem. Using the familiar narrative form of the psychological literature review, this task involves identifying the focuses of research activity and summarizing the most commonly obtained findings and "effect sizes." This narrative form is consistent with the logic of quantitative methodologists but because its message is itself enmeshed within its own quantitative rhetoric, the literature review fails to reveal much about the nature of the contribution and how it "fits" in terms of the broader context of higher education studies. However, even within this rhetorical genre, the process of assessing contribution and impact is far from straightforward.

If the task is approached from the psychological rather than the educational frame of reference, then a disciplinary bias exists concerning the applicability and relevance of the findings. Due to the intellectual traditions within psychology, psychologists view their research as having a wide spectrum of applicability, and as a result of our commitment to "generalizable" findings we view the fruits of our research as pan-contextual. In contrast to the discipline of psychology, higher education has been described as a field of study in that it is diverse in its methods

of inquiry, levels of analysis, and content areas (Donald, 1991). The different attributes of the discipline of psychology compared to the field of higher education contribute to psychologists' tendency to view much of psychological research as having relevance to numerous field settings, including the higher education field. For example, they may say that studies on aggression could be relevant to understanding campus violence, prosocial behavior research could be relevant to understanding how professors provide assistance to students, studies on recipient reactions to aid could be relevant to understanding the social dynamics of peer tutoring, prejudice and discrimination research could be relevant to understanding racism in university classrooms. On the other hand, researchers situated more closely to the field of education may not share this view as they recount with the shell-shocked demeanor of war veterans the days when psychologists applied Hullian drive-reduction theory to the classroom or the days when Skinnerians laced the education system with token reinforcement programs based on pigeon-pecking research.

Related to the above discussion are at least two other factors that contribute to the difficulty of undertaking a psychological review of the literature pertaining to higher education. The first is the patchwork nature of accepted venues for this type of research in that individual contributions are not necessarily found in journals of higher education. Increasingly, investigators are contributing research reports to psychological journals, and the editors of these journals have begun to view these contributions as a separate category of psychological scholarship, with the selection of peer reviewers based on a perception that they belong to that community of scholars. The second is that many research contributions do not conscientiously have higher education as their focus but nevertheless become part of the collective knowledge shared by the community of psychologists engaged in higher education research. This occurs because a prevalent research practice among psychologists is to use Introductory Psychology students as research subjects, including research related to cognition, motivation, and other topics that can be linked to education. However, the intention of these researchers is to study a psychological process that they believe is transcendent, and therefore their use of psychology students is merely a matter of convenience rather than an interest in higher education learning per se. Whether these studies are considered higher education research should depend on criteria other than the use of university students as research subjects. This sentiment echoes Wohwill's (1973) statement that using children as research subjects does not a developmental study make.

Although the above discussion contains a number of disclaimers, I

prefer to use it as a kind of backdrop against which I will make the claim that psychologists have indeed been very active in contributing to higher education research. Our contributions have been particularly frequent in the teaching and learning area, including evaluation of teaching and student learning processes. Each of the various editions of the *Handbook of Research on Teaching* contains a chapter devoted to the specialized area of higher education (McKeachie, 1963; Trent & Cohen, 1973; Dunkin, 1986). These chapters provide documentation of the extent of higher education research that is devoted to teaching and provides evidence of the active role that psychology in particular has played in defining and shaping this area of study. In scholarly venues for educational psychology research one can see many research reports that focus on the university context, including a special issue of the *Journal of Educational Psychology* (R. P. Perry, Ed., 1990) devoted to this topic. Journals of higher education publish research and scholarly reviews of psychological research pertaining to university students and classrooms in addition to their more traditional focus on institutional analysis, policy, administration, and governance; the *Higher Education: Handbook of Theory and Research* has published a number of chapters that review research on psychological studies (e.g., Covington, 1993; Marsh & Dunkin, 1992; Murray, 1991; Perry, 1991). Jossey Bass, a publishing company that has been active in providing a scholarly venue for higher education researchers, has published numerous books and monographs that are psychological in their orientation (for example, the *New Directions in Teaching and Learning* monograph series). Of course, other books and monographs are available that examine teaching and learning in higher education contexts, and many of these have contributions from psychologists (e.g., Ramsden, 1992).

Thus psychologists have not only been active in researching issues relevant to higher education, but they have begun to reflect on themselves as a community, pursuing disciplinary development through integrative reviews and reorganization of existing knowledge. An important question to ask in this process is "By what criteria can we examine the maturity and quality of this scholarship?" In terms of sociological criteria this scholarship appears to be highly evolved, because there exist organized research and publication mechanisms as well as specialized professional organizations (see Donald, 1991 for a review). However, an examination of the epistemological features of this scholarship reveals less development in terms of the organization, cohesiveness, and internal consistency of the knowledge than one would expect, given the flurry of activity and commitment to the sociological aspects of academic research.

*Epistemological Characteristics of Psychological Knowledge:
The "Expertise" Analogy*

One way to examine the epistemological characteristics of this knowledge is by analogy, using the expertise literature as a way to identify criteria by which one can evaluate the quality of knowledge. This literature suggests that our ability to think competently within an intellectual domain depends not on the quantity of knowledge, for example, how many studies are produced, but rather on how the knowledge is organized. Within higher education, psychological knowledge appears to be disjointed; several knowledge domains differ in their degree of internal cohesiveness and in their degree of interrelatedness between domains. For example, within psychology researchers have clustered themselves around content areas such as academic motivation, cognition, teacher evaluation, and so on. There is a strong tendency for scholarly communities to evolve around these separate topics, each with their own journals, societies, and scholarly meetings: those who publish in journals focused on cognition tend not to publish research related to motivation, and those who publish research on university teaching tend not to publish research related to developing problem-solving skills. Rather, it is more often the case that scholars come together around their specialized topic areas and develop theoretical frameworks and vocabularies that do not "transfer" easily to other topics. Although one would imagine that evaluating the quality of teaching would be theoretically linked to cognitive process and motivation, there is no overarching conceptual framework for developing these linkages. Thus, although the separate specialized communities share a commitment to an inquiry style, specifically a "scientific" inquiry, they do not share a theoretical framework, and they do not share a vocabulary.

The implication of this disjointedness is that our ability to think competently about complex classroom processes is limited. The potential for high quality thinking within each domain (e.g., cognition, teacher evaluation, motivation, and so on) must be examined not only in relation to an internal logic but also in relation to the quality of linkages between knowledge domains. When these linkages are limited, the potential of psychology to inform actual classroom practice is curtailed, because as a community of scholars we are unable, for example, to communicate to teachers how their instructional practice is related to their students' learning and motivation. Our commitment to scientific inquiry leads to a decontextualized knowledge to the rather extreme extent that our ability to think competently and creatively about particular contexts in their rich complexities is relatively underdeveloped.

To continue with the expertise analogy, psychologists' insight into complex classroom processes is more akin to "novice thinking" than it is to "expert thinking," for much of the "knowledge base" is disconnected, as discussed above, and therefore inaccessible and difficult to "proceduralize." That is to say, the knowledge of the cognitive scientist is not easily accessible to the motivation researcher, for example, and therefore it is almost impossible to draw on separate knowledge domains to develop practical applications for complex problems that span several domains.

Consider, for example, psychology's role in the process-product research that has been a respected tradition in research on teaching. The term "process-product research" was introduced by Dunkin and Biddle (1974) to denote the type of research in which some process, often a teaching behavior, is empirically shown to have a measurable impact on students, often an achievement score. In more general terms, it denotes systematic studies in which variations in operationally defined "processes" are shown to result in, or at least correlate with, systematic variations in operationally defined "products." My early work in which I carefully varied teaching behaviors that comprise "expressiveness" to demonstrate differential effects on students' achievement scores (i.e., learning) and achievement attributions (i.e., motivation) is an illustration of this research tradition (e.g., Magnusson & Perry, 1989). An overview of the chapters on higher education teaching in the various editions of the *Handbook of Research on Teaching* demonstrates the high value attached to this approach and its prevalence among higher education researchers. It underlies, for example, studies in which dimensions of effective teaching as measured by student evaluation are correlated with students' examination scores (e.g., Feldman 1989; Murray, 1991). In that it signifies valued practices in scientific investigation, process-product research has been valued and respected as an approach to higher education teaching and considered most valuable in terms of providing clear, concise prescriptions to university teachers: "If you increase (some behavior) your students will achieve more and will evaluate you more positively."

The expertise analogy is helpful in understanding the inherent difficulty with this approach. The process-product research tradition yields a propositional knowledge (e.g., *if* you are clear in your explanations *then* your students will have higher end-of-term scores) that evolves independent of a declarative or conceptual knowledge of the teaching-learning process. The propositional knowledge is not organized along higher order understandings, and there is no theoretical framework from which further insights can be developed. This type of knowledge leads to a quality of thinking that is much more characteristic of a novice than an

expert. University professors will benefit from this research only to the extent that, like novices in other domains, they can follow a recipe or a set of rules, which in this case is a recipe for lecture-format teaching. Because this research does not foster expertise, it does not promote creativity with respect to how professors develop pedagogical applications to address the learning needs of their students. Moreover, it overlooks important considerations related to curriculum and can communicate the message to professors that teaching is merely a matter of technique with respect to lecture presentation skills.

Although the novice-expert analogy is helpful in examining certain characteristics of psychological knowledge about teaching, it is limited in terms of understanding the future of a research practice that pursues a scientific approach. The temptation may be optimistically to persist with these inquiry methods with the expectation that the novice characteristics will gradually evolve to a more expert understanding of the higher education classroom. However, these novice characteristics should not be confused with a promising, albeit, infant program of research that progressively becomes more integrated and mature. On the contrary, psychology has become ever more specialized and less integrated to the extent that a specialist in one area has difficulty comprehending a scholarly article in a different area. In making this observation I am not suggesting that psychologists should aim toward a unifying theory or discourse; rather, I wish to make the point that the style of inquiry preferred by research psychologists, like any style of knowledge construction, has epistemological implications. One would therefore expect that further pursuit of this style of knowledge construction would exacerbate the tendency toward specialization and the attendant advantages and disadvantages. One disadvantage is a disjointedness or tendency for the specialized areas to become increasingly insular and become intellectual domains unto themselves with little potential for integrative thinking that brings together several classroom domains to address practical issues such as insights into complex classroom processes.

Consider, for example, the intricate relationship between cognitive process and the semantic organization of a knowledge domain. Analogously, the methods of inquiry that typify a discipline are intricately related to the other epistemological features of the disciplinary knowledge. What the analogy fails to capture, because it is after all grounded in a metaphor derived from an individualistic and structuralist view of cognition, is the social nature of the knowledge construction or, in other words, the sociology of psychological knowledge. Perhaps because of its tendency toward insularity, psychology, unlike other social sciences, has not valued the type of reflexive scholarship that occurs in anthropol-

ogy, sociology, history, political science,² and in particular from a feminist and social critical perspective. Hence, the process of inquiry is much more than a method in that it entails all of the informal and formal "rules" of how to participate socially in the inquiry process or, more simply, the discursive practice of psychological research. The scientific method as a social practice, situated as it is in the case of psychology within the intellectual traditions of positivism, reductionism, empiricism, and rationalism, contribute to a knowledge that is uniquely psychological and can be described in terms of certain characteristics and themes that are uniquely psychological. Without attempting a comprehensive archeological description I will turn my attention to particular themes that arise through examination of the knowledge that research psychologists have contributed to higher education.

Research Psychology and the Culture of Science

Much has been written about the influence that pursuit of scientific inquiry has played in knowledge building within psychology and the social sciences more generally, and therefore a comprehensive analysis will not be presented here. Rather, I will simply provide a thumbnail sketch in order to raise some points regarding the implications of psychological research within the context of higher education scholarship. I think it is important to note that I am describing what I refer to as "research psychology," and the activities of "research psychologists." Certainly there have been, and still are, other influences in psychological knowledge building, but these have been regarded with suspicion by those who adhere to a scientific approach to inquiry.

In general, psychologists share an adherence to scientific methods of inquiry and have traditionally accorded status to the variety of these methods based on values grounded in positivism, reductionism, empiricism, and rationalism. It would be incorrect to suggest, for example, that research psychologists eschew qualitative methods of inquiry; rather they view these methods as a starting point from which an experimental approach, including a more trustworthy methodology using quantitative analysis, can be developed. Moreover, the qualitative methods that are adopted are not those we associate with interpretive research traditions but those that are consistent with positivist, empiricist traditions. Underlying the qualitative approaches of research psychologists are the same intellectual traditions that characterize experimental and quantitative methods, with objective observation as an ideal. Hence, simply to change the status of these qualitative methods so that they are used more frequently does not change the epistemology of mainstream research

psychology and does not appreciably change the style of inquiry or the kinds of questions asked. The experimental research community has been resistant to inquiry approaches that are grounded in interpretive intellectual traditions, and this resistance protects or safeguards the view that the goal of inquiry is to uncover causal relationships in the Humean sense of causality. Knowledge of causal relationships, it is believed, can be used to "engineer" the ideal classroom, with as much scientific precision as possible. I may add that if such exact and absolute scientific knowledge were possible, scholarly social criticism could be deemed unnecessary.³

A distinctive feature of mainstream psychological research has been the community's view of the relationship between the researcher and the object of investigation. The ideal of the psychological researcher is to be the detached observer, capable of extricating him or herself from the observation. Experimenter bias is regarded as "noise" that can be experimentally or statistically controlled in order to produce objectified data that stand on their own, unencumbered by any particular theoretical perspective. Pure data can then be used to falsify hypotheses, and in Popperian style the theory most robust to falsification wins the day. As theories are falsified, they are revised or replaced, and the new or revised theory is viewed as a better representation of reality. Although there is a strong tradition of scientific realism in psychology, particularly in the interdisciplinary area of cognitive science, my experience as a member of psychology's research community leads me to suspect that naive realism is more often than not the philosophy underlying much of psychological research practice. As many have observed, within this type of research tradition knowledge is seen as "progressing" in a systematic, sequential, and objective fashion, with detached description the activity characterizing infant research programs and detached prediction/control the activity characterizing mature programs. The psychological researcher, then, seemingly impervious to the lessons physicists have learned from Schroedinger's cat, continues to relate to her or his investigations in a Cartesian fashion.

Although scientific conceptions of the material universe have undergone significant changes, psychology has been somewhat slow in integrating these changes into its worldview. In saying this I am not suggesting that psychology ought to be more vigorous in pursuing scientific models of inquiry, exchanging Newtonian conceptions with quantum dynamics and chaos theory; rather, I wish to draw attention to the irony inherent in psychology's resistance to change when the very disciplines it once sought to emulate have themselves experienced rather radical changes. It is of little wonder, then, that the changes that have occurred

within the other social sciences, especially the turn to more interpretive forms of inquiry, the challenging of modernist discourses, the integration of critical and reflexive forms of scholarships, have had little influence on mainstream research in psychology. The insularity of psychology in this respect reveals important characteristics of this discipline in terms of its operation as a knowledge community. Psychology's resistance to change and its tendency to form relatively insulated scholarly domains is a manifestation of its processes of knowledge construction, or its sociology; ironically, it lacks the scholarly processes by which it can reflect on itself as a knowledge community that is historically, socially, culturally, and ideologically situated. Such rigidity in a scholarly community reveals much about the network of power within which psychology defines itself as a discipline and regulates its knowledge development (Foucault, 1989; Bourdieu, 1994; Parker, 1990).

The nature of intellectual activity in psychology was captured by Donald (1982; 1990) in her studies of professors' conceptions of learning tasks in their own areas of studies, and her examination of the content structure of different university courses (e.g., Donald, 1982). Based on this work she concludes that the learning task of psychology students is to "master technical concepts which are related hierarchically, and to learn to build theoretical models, using logical empiricism in the building and testing of the models" (Donald, 1990). In this respect psychology was similar to the physical sciences, and both psychology and the physical sciences were quite different from the humanities, where the preferred validation process was the peer review (Donald, 1990). Whereas psychology students must learn the process of theory building and acquire the technical competence required for empirical validation, English literature students spend much of their time reading text and developing aesthetic and critical skills through discussion and interpretive analysis of a corpus. Donald's studies confirm psychology's continued commitment to the intellectual traditions grounded in the culture of science and show how its intellectual activities are different from those of other scholarly areas.

My Psychological Landscapes

If psychology is indeed characterized in the ways discussed above, how do these create an intellectual and creative environment within which I learn to be a psychological researcher and engage in inquiry? Which aspects of the higher education landscape will enter my field of vision and which will I be unable to see? I remember a psychology experiment in which kittens were raised in a visual environment consisting only of vertical lines; they were later found to be perceptually oriented

to verticality, but were horizontally blind. Am I like the horizontally blind cat, a disfigured subject of psychological experimentation, who can perceive trees and mountains but has a freakish inability to scan the horizon? Which dimensions in my cultural reality as a graduate student were prominent and which were occluded? Can I understand these dimensions now, or like the kittens described in the experiment, have I missed some sort of critical period? Could I create an idea of horizon through metaphor, using that part of the landscape I readily perceive and with which I am already familiar as a referent to understand aspects of the landscape with which I am unfamiliar? If so, are these metaphorically derived understandings of the horizon qualitatively different from the understandings of those who do not have the same perceptual blindness?

To examine the higher education landscape painted by psychological researchers, consider the review of research published by the National Center for Research to Improve Postsecondary Teaching and Learning entitled "Teaching and Learning in the College Classroom: A Review of the Research Literature" (McKeachie, Pintrich, Lin, Smith, 1986). I have chosen this particular text because it is an excellent quality review, the works cited are primarily from psychological sources, and it provides a "snap shot" of the knowledge construction of research psychology. The major headings of this text are: Student Entry Characteristics (Intelligence, Motivation and Personality, Cognitive Styles); Student Cognition (Knowledge Structure, Learning Strategies, Thinking and Problem Solving); Student Motivation (Description of the Expectancy Path, Description of the Task Value Path, Antecedents of the Motivational Constructs, Interventions for Motivation, Assessment); Instructional Method (Peer Learning and Teaching, The Case Method, Lecture, Class Size, Independent Study, Research on Learning from Reading, Programmed Instruction and PSI, Testing); Academic Tasks and Activities; Aptitude-Treatment Interactions; What Do Effective Teachers Do (?).

If this outline is viewed as a kind of landscape painting, what becomes clear is that student learning figures prominently, with learning expressed in terms of achievement indicators such as course grades and grade point average. Although a more descriptive understanding of learning is sometimes conveyed, for example in terms of cognitive maps or cognitive structure, the authors indicate that these are primarily structural descriptions that reveal "little about the nature of relationships between concepts . . . and the dynamic properties of the structure" (p. 21). The focus on achievement is also conveyed, and supported by, a large literature devoted to "achievement motivation," in which the students' cognitive processing of their academic environment is brought to the foreground and viewed as a causal antecedent for students' emotions and behavior. Achievement motivation is viewed as a critical aspect of

cognitive development in that it provides a backdrop for students' development and enactment of cognitive and metacognitive strategies, leading to enriched self-regulated learning.

The teacher is brought into the picture by mapping out empirical relationships between instructional practices and student outcomes (e.g., test scores, achievement motivation profiles, etc). However, there is also an extensive student ratings literature in which the teacher is represented in terms of dimensions such as enthusiasm, organization, clarity, rapport, and so on; these are further analyzed in terms of specific teaching behaviors and practices that correlate with student satisfaction and achievement. As suggested by the literature review, the relationship between teacher and student is often explored in terms of "interaction effects," which is a statistical concept in which variations in teaching are shown to affect different students in different ways (e.g., bright students benefit more from small classes compared to less able students). In the psychological literature, aptitude by treatment interactions have been used extensively to represent complex relationships and have been psychology's tool for exploring context or how variables are situated in relation to one another. As Bereiter (1990) points out, this procedure quickly spins out into a "hall of mirrors" dilemma in that there are infinite variables that can be added to higher and higher order interactions. The usefulness of this approach for dealing with complex situations is therefore limited.

In the area of higher education, then, student learning as expressed in terms of achievement has been an important focus of psychological research. This interest, and particularly the expression of this interest in terms of self-regulated learning and independent striving, is an expression of our cultural interests, values, and ways of knowing: rugged individualism, boot-strap achievement, entrepreneurial striving. The self who is endowed with near mystical agency and who can rise above current difficulties reflects not just an intellectual tradition of enlightenment and rationalism, but resonates deeply with our cultural expressions of mythic heroism; more than a rational choice of research interests, it springs from our mythic, aesthetic, poetic sensibilities that are situated within a social, economic, political context. There is a subject-object binary implicit in the motivated self-regulated learner who can act on his or her environment to produce achievement outcomes; the learner is the omnipotent consumer of his or her own material productions.

Metaphors I Live By

Against this backdrop, psychological researchers refine and explore this image of the learner using the conceptual tools of their trade. There

is much to comment on with respect to how psychologists are trained to think, conceptualize, and create meaning, but I will explore only two aspects. The first, with apologies to Lakoff and Johnson (1980), concerns "the metaphors psychologists live by." As these authors suggest, the importance of the metaphorical process to our everyday experience often goes unrecognized or is taken for granted. It is a process that plays, at the very least, a significant role in our conceptual life; it enters into the fabric of daily lived experience in terms of a dialectic of experience and its signification; metaphors shape our experience and experiences shape our metaphors. Psychologists, embedded as they are in the culture of science, draw upon their experiences as scientists to relate metaphorically to the student. In fact, in the achievement motivation literature the student is portrayed *as* a naive scientist, a metaphor developed in social psychology through the writings of Heider (1958), Kelley (1967), and others. This literature develops an individualist conception of social phenomena, portraying the individual as the inquiring subject seeking causal explanations as a means to better manipulate and predict the social environment. The student as naive scientist is the metaphor underpinning cognitive explanations of motivation and the attribution theories of achievement motivation in particular. People are conveyed as information processors that are oriented to those events in their environment that can be used to establish causal relationships: they observe how events covary, they estimate probabilities that certain events follow certain actions, and so on. A central theme of this literature is that students can learn to attribute the cause of their achievement outcomes to factors within their control, such as improving their strategy or trying harder, thereby sustaining their effort in the face of difficulty, expending their effort more effectively, and regulating their emotions. The mythic hero who surmounts an escalating series of difficulties can be socially engineered through a technique known as "attribution retraining."

The student as naive scientist is an intriguing, if not poetic, metaphor that refers back to the child. It is enchanting to project onto students the values and characteristics of the scientist, viewing both as curious, inquiring beings imbued with an innate, childlike motivation to master the environment. It is a metaphor that both humanizes and privileges scientists and the culture of science. The implication is that science is an elaboration of a natural human need to understand and explore, but it is interesting that as a scientist I should presume that the primary way people relate to their environment is in terms of insight into causal relationships and the possibilities for agency this insight presents. It reveals our dependence on inductive and deductive logic as a way of knowing and diminishes more interpretive means of developing insight. That I do not see people as naive philosophers and do not see them as aspiring for the

wisdom of tribal elders reveals a disciplinary and cultural centrism in my conceptual system as a scientist. There is an imperialist posturing in the way that I develop an understanding of teaching and learning that is derived from my own intellectual traditions and disciplinary culture and impose it on other knowledge communities by way of developing institution-wide student rating forms, prescribing how to teach, and privileging certain types of learning over others. Is my motivation to understand academia or to colonize it? Science as exploration and discovery takes on a different layer of meanings when I examine my scholarship in its context of application. Indeed, it is more the application of the scholarship that concerns me, rather than the unique way that research psychologists develop insight, with its potential to curtail freedom of expression and regulate knowledge.

Science and technology have long been recognized as a rich source of metaphor and do not require much elaboration here: cognition and computers, thoughts and holograms, human diversity and fractals, social development and engineering, classrooms and cybernetic systems are thoughtful and creative constructions. As a psychologist I am more easily persuaded to examine critically the role that metaphor plays in my theory building than I am to examine critically the way in which I live by these metaphors. I am reluctant, for example, to give up my position as social engineer, who supports institutional culture, and assume the position of social critic, who challenges institutional culture. As suggested earlier, my training as a research psychologist involved an intensive apprenticeship to acquire the technical skills of empirical validation: statistics and the logic of research design. I can contribute to theoretically derived programs of social improvement — teaching professors how to lecture more effectively, teaching students how to learn more effectively — and I can empirically validate their effectiveness. I assist in creating a social reality, develop hypotheses embedded within these realities, and then test these hypotheses against the data of the social reality I myself have helped to create! But, unlike the students of literature described earlier, I have not been trained to read these activities like a text and to detect the subtextual themes of my research practice. I have been indoctrinated, but I have not been politicized in the critical sense of understanding my own indoctrination, and I have not been equipped with the skills to challenge my indoctrination. The technical competencies I have acquired are much more than a repertoire that I can draw upon; they have become ingrained in my way of thinking, conceptualizing, and engaging in my research practice. They have acquired a status far beyond that of “tools” in that they pervade my concepts, understandings, and knowledge construction. The relation between these technical compe-

tencies and how I think as a research psychologist is, in fact, the second theme I would like to discuss in relation to my training and how my training affects my research.

Insight and the Logic of Statistics

If metaphor contributes to the substance of theories, statistics contributes to the form. Psychology is rich in theories that resemble factorial research designs that are used in conjunction with statistical linear regression procedures known as analysis of variance (ANOVA). The theories of achievement attribution discussed above serve as a nice illustration of this type of "factorial thinking" in which structural dimensions are used to organize the various causal attributions used by students to account for their achievement. For example, students' causal inferences for a given achievement outcome can be located along the dimension of "internal-external," with inferences such as "I got an A because I studied hard" described as an internal attribution (i.e., the student sees him or herself as the cause), and an inference such as "I got an A because the professor is an easy grader" described as an external attribution (i.e., the student sees a powerful other as the cause). This structural dimension can be combined with others, such as stability (stable, unstable), intentionality (intentional, unintentional), importance (important, unimportant), controllability (controllable, uncontrollable), generality (general, specific), and so on. The result is a number of factorial combinations that locate the causal inference in a factorial hyperspace. Thus, for example, "I got an A because I studied hard" is an internal, unstable, controllable, intentional, etc., factor to which the cause of the achievement outcome is attributed. The different attribution models postulate different combinations of structural dimensions and yield somewhat different insights, emphases, and predictions concerning student achievement behavior.

The attribution models represent only one example of psychological theory that is expressed in factorial form. There are many other examples found in social psychology (e.g., Foa and Foa's [1975] model of social exchange, Stokols's [1978] model of human-environment transactions), personality (e.g., the Myers-Briggs typologies [Bayne, 1995] which factorially combine four personality dimensions), intelligence (e.g., Guilford's [1959] model of intelligence), and child development (e.g., Baumrind's [1971] typology of parenting styles based on the two dimensions of responsiveness and control), to name a few. They reflect the training that research psychologists have in statistics and experimental design based on analysis of variance and linear regression. Contrary

to the biological deterministic explanation for attribution models of achievement motivation — that is, that they reflect real structures with which we were biologically endowed for survival — they are “hyper-real, the product of an irradiating synthesis of combinatory models in a hyperspace without atmosphere” (Baudrillard, 1983, p. 3). They are models to represent self-determinism and agency and to reproduce self-determinism and agency; they are hyperreal in the sense that they are models not of what we have but rather what we do not have (Baudrillard, 1983). They are the myths that arise precisely when the possibility of self-determination and agency are not available.

Other types of statistical procedures are used in research psychology, and these also contribute to the form of theoretical models. For example, reliance on factor analytic procedures gives rise to a search for underlying structural dimensions. In the higher education literature, as discussed earlier, teaching has been conceptualized in terms of underlying structural dimensions such as enthusiasm, organization, clarity, rapport. Structural equation procedures give rise to theoretical models that are expressed in the form of path diagrams, as evidenced in the literature review presented earlier where “expectancy path” and “task value path” were listed in the table of contents. Trend analysis procedures give rise to theoretical models that depict curvilinear and other more complex relationships. For example, in Rosen’s (1983) model of problem definition and helpseeking, a perceived inadequacy ratio of resources needed to resources available is depicted in terms of quadratic relationship to frequency of helpseeking. And of course, complex theoretical models represented in algebraic form have had a long history in psychology, and this practice is still evident.

The expression of theory in forms grounded in statistics and research design is a creative skill that is supported by the structuralist intellectual tradition that is still strong in psychology. It is a skill developed through years of undergraduate and graduate training in the technical competencies required for empirical validation. Becoming competent in statistics and research design entails becoming competent in a way of thinking and extending this way of thinking beyond the domain in which it was acquired. Underlying statistical procedures is a logic or, to use an analogy from Bohm (1980), an implicate order that is manifest in a kind of explicate order in terms of the sorts of concepts, research questions, methodology, and theoretical models I develop as a researcher. In the process of acquiring these technical competencies, I learned to think and conceptualize in terms of the logic that underlies these skills. I studied hypothetical examples used for pedagogical purposes in textbooks, and I learned how to represent cognitively the higher education setting in

terms of this logic. Classrooms become treatment and control groups, teaching methods become independent variables, student characteristics become values to be entered into a path diagram, constructs become quantities, complex relationships become higher order interaction effects, the inexplicable becomes a large mean square error term, and systematic variance becomes a coveted journal publication (sometimes semiotic interpretation is so straightforward!). Of course, the end goal is self-motivated achievement, or the gift of agency, and the variance related to this dependent variable is the variance I most want to systematize, predict, and engineer: not merely to produce it but to reproduce it in every precise detail — a third order simulacrum (Baudrillard, 1983).

The research method goes beyond representing the higher education setting in terms of research design and logic of linear regression to developing theory that is in the form of this logic. The methods used to engage in empirical validation of theory become themselves the form that the theory takes. To argue that these forms exist in nature negates the role of cultural understandings in constructing the categories used in the psychometric development of theoretical constructs and negates the discursive practice associated with construct and theory development and their validation (Cherryholmes, 1988). Moreover, it reflects a discipline centrism in that the theoretical forms of other disciplines may very well reflect the activities that constitute scholarly practice in these disciplines, and the claim that each category of theoretical forms exists because it exists in nature begins to fall apart. Similarly, computer flow charts and semantic propositional diagrams are forms used by researchers in theoretical modeling of cognitive processes, but it is one thing to use these forms as useful methods for modeling and developing insight and quite another to suggest that they reflect the underlying structure of nature.

It seems that my training as a psychologist has somehow missed, or ignored, important intellectual and cultural events that have occurred in other scholarly communities, events that would have allowed me to apply the same critical eye to these structuralist notions that scholars in other social science areas have applied to structuralist suppositions within their own domains. I believe these kinds of oversights in training reflect the nature of knowledge regulation in my discipline and further reinforces my practice as a social engineer. For example, training in research psychology that has higher education teaching and learning as a focus is considered suitable preparation for institutional positions such as “instructional development officer,” and would involve setting up evaluation systems to assess quality of teaching (e.g., student ratings instruments) and developing workshops to improve lecturing and other

skills deemed necessary for teaching large undergraduate classes. On a humorous note, I observe that instructional development offices are blossoming in Canadian universities and have for some time now been a phenomenon of American universities, but I have yet to find a burgeoning of "Offices of Emancipatory Pedagogy" in our higher education systems. I present these illustrations because I think it is important to understand that the metaphors and forms of theoretical models I use in my research practice are more than cognitive manipulations; they are supported by a broad range of social and cultural experiences and find their way into institutional applications that serve institutional interests.

Higher Education and the Inquiring Psychologist

That my script as a research psychologist engaged in higher education inquiry would be written for me was a feature of academic life I had not at all anticipated. The script involved experimental methodology, the systematic mapping out of relationships among variables using linear regression techniques and a range of topics deemed suitable for study. The insular community of inquiry that psychology maintains ensures that the script will be followed closely, thereby displacing authorial judgment and responsibility onto the regulatory mechanisms of the discipline rather than onto the inquirer. To the extent that my authorial responsibility is diminished, I have to question seriously the *authenticity* of the knowledge I publish in journals or present at meetings. As Habermas (1971) has explained, I am not an inquiring psychologist, but rather I am a social engineer in that my competencies are applied to the technical control of social systems: developing student evaluation instruments, manipulating lecture presentation skills, retraining students' achievement attributions, and perfecting other such technical applications. My persistence in adhering to this script reveals an immature consciousness that displaces moral responsibility and reasoning onto the disciplinary apparatus of social science — an apparatus that has shut itself off from the interpretive, reflexive, critical inquiry required to motivate and guide a change in consciousness. The difficulties inherent in "a rationality confined to the technical horizon" (pp. 255) was elaborated by Habermas (1971) who suggested that science as applied to social life encounters a serious limitation in its potential for enlightened action: "The danger of an exclusively technical civilization, which is devoid of the interconnection between theory and praxis, can be clearly grasped; it is threatened by the splitting of human beings into two classes — the social engineers and the inmates of closed social institutions" (p. 282). I would only disagree with Habermas in one respect: my experience as a

research psychologist would lead me to argue that if I am a social engineer, I am as well an inmate of a closed social institution. I prefer to change that script to that of an inquiring psychologist committed to enlightened action.

Notes

¹Further into the text it will become clear that the metaphors "voice" and "ways of knowing" have a rhetorical use here that differs from an essentialism associated with ascribing "nurturing," "connectedness," and so on, to a gender category. At times I use citation to create a subtext.

²This feature of psychology may be changing as evidenced by Parker's (1990) deconstructive analysis of social psychology, but among the psychologists involved in higher education research there has been little departure from the scientific canon. Deconstructive reading of text is an example of reflexive scholarship.

³Although I have used the term "unnecessary" here, I have heard much stronger adjectives applied.

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Attitudes Toward Research and Teaching

Differences Between Administrators and Faculty Members

In 1950, 43% of high-school graduates pursued some form of higher education, and 6% of Americans were college graduates (Elfin, 1993). In 1992 about two-thirds of secondary-school graduates went to college, and 21% of a larger American population held college diplomas. Nowadays some 17 million students are going to classes taught by 762,000 faculty members on 3,400 campuses (Elfin, 1992). According to Professor Herbert London of New York University, "The college experience has gone from a rite of passage to a right of passage" (Elfin, 1993, p. 4).

For the past several decades, educational leaders, faculty members, and the public have been concerned about the mission of the university (Boyer, 1987; Porter & McKibbin, 1988) and the priorities of teaching and research on campuses (Clark, 1987; Eble & McKeachie, 1985; Edgerton, 1993; Hornback, 1993; Mooney, 1992; Tang & Tang, 1987). The reward systems (Bok, 1993; Kasten, 1984; Tang, in press) and professional misconduct (Braxton, 1994; Braxton & Bayer, 1994) have also been examined.

The major purpose of our research is to identify attitudes toward the mission of the university, research, teaching, and the reward systems related to teaching and research by examining all educational leaders (administrators) and a random sample of faculty from six regional state uni-

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versities in Tennessee. Further, we investigate attitudinal differences between administrators and faculty members on these attitudes. On the basis of the attitude-behavior consistency model (Ajzen & Fishbein, 1977; Tang & Baumeister, 1984), we expect that these attitudes will be related to faculty and administrators' behaviors in higher education. We review relevant literature briefly in the following paragraphs.

Regional State Universities

Regional state colleges and universities enroll more than 25% of the undergraduate students currently in higher education (Bassis & Guskin, 1986). Typically, many of these universities began as teachers colleges with a narrowly defined mission. Since World War II these schools have increased student attendance and expanded their programs at unprecedented rates. Within a short span of time, these institutions have radically transformed their character. In these "transitional" (Stark, 1986, p. 64) or "incoherent" (Clark, 1987, p. 115) universities, faculty members are expected to publish while carrying heavy teaching loads, which leads to role conflicts.

These newly transformed universities seek educators with an orientation and credentials typical of the research scholar. The number of teaching-oriented professors continues to dwindle, while the number of research-oriented academicians increases with each passing year. Because the length of service at these universities may have a significant impact on the attitudes of these academicians, length of service will be controlled statistically in data analyses.

Mission

The relative importance of research and teaching varies according to a school's mission. Without a clear focus on institutional mission, university administrators cannot clarify nor justify their expectations of role performance. Boyer (1987, p. 10) reported the presence of "a tension on most campuses over the priorities of teaching and research," and other scholars showed the same concerns (Koplik & Welsh, 1993; Mooney, 1992). This tension appears vividly in regional state universities. In this study, we examine the differences between administrators and faculty on these issues.

Research Versus Teaching Orientation

Research. Some researchers argue that research performance, unlike teaching performance, offers an objective means of evaluating faculty effort (Kasten, 1984). Measuring faculty's research provides the "most efficient manner" of ascertaining the quality of their teaching (Paul &

Rubin, 1984, p. 145). However, these arguments are not universally accepted as true. Further, some researchers suggest that the audience for published research extends beyond the campus, and sometimes beyond the nation; the direct effect of teaching, however, seldom extends beyond the classroom. Publishing enhances external prestige for the institution (Boyes, Happel, & Hogan, 1984). The act of teaching is "literally invisible to his organizational colleagues and superiors" (Martin & Barry, 1969, p. 699).

Publication count has been utilized as the sole criterion for ranking departments or schools in different universities (Webster, 1986). Educational leaders responsible for determining relative prestige for various educational institutions base their decisions principally upon their faculty's reputation for scholarship. There is a strong relationship between the rate of publication and scholarly reputation (Davis & Astin, 1987). Because fame attracts endowment, institutions are keen to secure as much visibility—which is equated with prestige—as possible (Lewis, 1975).

Teaching. Stanford University's Donald Kennedy declared bluntly that "It is time to reaffirm that education—that is, teaching in all its forms—is the primary task" (Toch, 1990, p. 10). Teaching will be the primary mission for institutions in higher education (Hornback, 1993). Many institutions are considering a new movement and a more balanced route between instruction (teaching) and scholarship (research) to tenure university professors. Teaching excellence also improves the department standing on campuses (Boyes et al., 1984).

Relationships Between Research and Teaching

Feldman (1987) reviewed the existing literature on the relationships between research and teaching and stated that "research productivity is positively but very weakly correlated with overall teaching effectiveness" (p. 240). That is, "These relationships almost always have been in the positive direction, although, more often than not, they have been statistically insignificant" (p. 275). He did not find statistically significant inverse associations between the two variables. It is possible that research productivity positively affects knowledge of the subject, intellectual expansiveness, preparation and organization, and pedagogical dispositions of teachers (clarity of course objectives and requirements), which, in turn, positively influence their overall instructional effectiveness.

Other studies seem to support this view. For example, faculty members who publish their research extensively receive teaching awards twice as often as faculty members who do not publish (Faia, 1976). Stu-

dents also reported greater course difficulty and heavier reading assignments in classes taught by faculty who devote more of their time to research activities (Hoyt & Spangler, 1976). Highly scholarly active faculty are more likely to be perceived as effective teachers than faculty who are not scholarly active (McCaughey, 1993). Thus, the majority of the studies support the view that research and teaching are mutually supportive.

On the other hand, some writers argue that time spent in research may reduce the time for classroom preparation (Orlans, 1962) and that the research requirement is one of the reasons for ineffective teaching (Bowen & Schuster, 1986). A high level of time devoted to nonsponsored research and writing results in low student ratings (Grant, 1971). There is an inverse relationship between faculty's involvement in research and their interaction with undergraduates (Blau, 1973). Intimate contacts with students result in higher student ratings (McDaniel & Feldhusen, 1970). It should be pointed out that Feldman (1987) did not include some of these studies in his review. In terms of preferences, a significant number of the faculty at Stanford wanted to give more time to research and reduce their time teaching (Hind, Dornbusch, & Scott, 1974). In another survey, 92% of the professors wanted more opportunities for research (Carter, 1989).

Other researchers, however, found little or no relationship between research productivity and quality of teaching (Centra, 1983; Harry & Goldner, 1972; Hoffman, 1984; Hoyt & Spangler, 1976). These findings seem to support Feldman's (1987) argument mentioned earlier. It appears that college governing boards can help improve productivity by refining their institution's mission to balance appropriately research and teaching in the faculty workload, a step that may benefit taxpayers, parents, and students (Koplik & Welsh, 1993).

Research, Teaching, and the Reward System

Teaching, research, and university and community services comprise the key missions of university professors. Educational leaders may employ a variety of reward systems to attract, retain, and motivate the best qualified faculty members. In one study, 54% of the faculty reported conflicts arising from teaching, scholarship, and service responsibilities (Eble & McKeachie, 1985). Productivity and quality improvements can be realized by modifying the policies and practices related to hiring, promotion, and compensation of faculty (*Illinois Board of Higher Education*, 1993).

Teaching and the Reward System. Stenstrom (1991) pointed out that "teaching is generally given low priority — very low priority — in our

established system of values" (p. 4). Teaching counts significantly less than does research (Schultz, Meade, & Khurana, 1989) and receives less weight in tenure decisions than it should. "In reality, the venerable dictum 'publish or perish' has become the virtual rule of law on many U.S. campuses, where research, not performance in the classroom, is the overwhelming factor in determining a professor's status and salary" (Toch, 1990, p. 10). Caplow and McGee (1958) noted that "for most members of the profession, the real strain in the academic role arises from the fact that they are, in essence, paid to do one job, whereas the worth of their services is evaluated on the basis of how well they do another" (p. 82). Kerr (1975) stated that our society "hopes" that professors will not neglect their teaching responsibilities but "rewards" them almost entirely for research and publications.

Moreover, teaching credentials, which are harder to document and quantify, are much less transferable. The major consequences are that excellent professors continue to be "locals" or "provincials" and to be forever condemned to lower salary structures than the "nationals," who engage in marketable activity (Van Fleet, 1994). In 1990 the Carnegie Foundation for the Advancement of Teaching issued a report arguing that the definition of scholarship be expanded to include teaching as a way of achieving a balance between the two (Mooney, 1992).

Research and the Reward System. When faculty members must choose between rewarding a colleague with relative strength in research or teaching, they prefer to reward the former (Kasten, 1984). When asked to list traits of the ideal professor, professors rated scholarly research ahead of teaching (Subkoviak & Levin, 1974). Erich Bloch, former director of the National Science Foundation, stated: "In the past, the emphasis was on research and teaching. Today, it is on research and research" (Toch, 1990, p. 10). As a consequence, university professors may concentrate on research, even to the detriment of teaching and at the expense of their students.

Professors with publication-oriented resumes usually will be well received at other universities. Gomez-Mejia and Balkin (1992) found that the number of job changes produces the largest monetary gains for management professors. Further, the financial returns yielded by job changes tend to be greater for individuals with exceptional scholarly records, but it pays for faculty members to move regardless of the quality of their records. According to Gomez-Mejia and Balkin (1992), "The highest correlate of job moves is top-tier publications (0.49), with teaching evaluations (0.25), citations (0.21), second-tier publications (0.19), and books (0.17) following far behind" (p. 940).

Due to the need to publish and find publication outlets, the number of

science journals alone increased from 8,062 in 1978 to 37,683 in 1988 (Toch, 1990). Although American professors' research has been prolific and is second to none, they may have created a massively wasteful academic publishing industry.

For the past two decades, many cases of scientific misconduct (e.g., Baltimore, Bruening, Benvenista, Borer, Darsee, Slutsky, Stricker, and Summerlin) have been the focus of attention by the scientific community and the lay public (Braxton, 1994). With greater perceived institutional pressure for receiving external grant monies, professors tend to avoid actions that would stigmatize them as whistleblowers (Braxton & Bayer, 1994). Thus, the reward system may strongly affect academic behavior (Murrey, Taylor, Hollman, & Hayes, 1994).

The Present Study

On the basis of the present literature review, administrators will expect faculty members in regional state universities to publish while carrying heavy teaching loads. Many faculty members believe that their research will be rewarded. Based on suggestions made by Caplow and McGee (1958) and Kerr (1975), it is predicted that administrators will continue to expect faculty members to focus on both teaching and research as the mission of the universities and to have the attitude that rewards influence teaching. However, faculty members will disagree with the administrators on these attitudes.

Hypothesis 1: Administrators will have stronger attitudes than faculty members toward the mission of the university (both teaching and research).

Hypothesis 2: Administrators will have stronger attitudes than faculty members that rewards influence teaching.

Method

Participants

In the state of Tennessee, there are two major systems of higher education: (1) The University of Tennessee and (2) the Tennessee Board of Regents. The University of Tennessee has 5 campuses, including the main campus in Knoxville. Under the Tennessee Board of Regents, there are 6 regional state universities (all began as teachers colleges) and 14 community colleges.

Participants were selected from the 6 regional state universities in Tennessee. These 6 institutions, based on the most recent available data (*The Chronicle of Higher Education*, 1994), arranged according to the

size of the faculty (from large to small) and the nature of the institution (Carnegie classification), will be listed briefly as follows: (1) University of Memphis (UM), Doctorate-Granting I institution, 20,400 students, and 685 full-time and 316 part-time faculty; (2) Middle Tennessee State University (MTSU), Doctorate-Granting II institution, 17,400 students, and 612 full-time and 189 part-time faculty members; (3) East Tennessee State University (ETSU), Master's (Comprehensive) I Institution, 11,300 students, and 396 full-time and 211 part-time professors; (4) Tennessee Technological University (TTU), Master's (Comprehensive) I Institution, 8,000 students, and 333 full-time and 110 part-time faculty members; (5) Tennessee State University (TSU), Doctorate-Granting II institution, 7,800 students and 320 full-time and 120 part-time professors; and (6) Austin Peay State University (APSU), Master's (Comprehensive) I Institution, 8,100 students, and 234 full-time and 172 part-time faculty members.

A survey questionnaire was given to 209 administrators and 384 full-time faculty members of 6 Tennessee Board of Regents (TBR) universities. The 209 administrators (i.e., 171 department chairs, 32 deans, and 6 academic vice presidents) represented the total population of all administrators in these 6 universities. The department chairs are considered as a part of the administrators because they are more involved in administration and may teach fewer courses than regular faculty members.

At the time of the study, there were 2,733 full-time faculty members on tenure track in these 6 universities. We excluded faculty members involved exclusively in graduate programs or in creative performance such as art, music, or theater due to the specific type of professional work (i.e., research publication is not appropriate for them) as suggested by Harry and Goldner (1972). Based on this criterion, the Tennessee Board of Regents (TBR) used an automatic system and randomly selected 20% of full-time faculty members "stratified by institution," which resulted in a random sample of 384 participants.

A survey questionnaire, a cover letter from the second author, and a self-addressed and stamped envelope were mailed to each participant. Their participation in this research was completely voluntary, and their confidentiality was protected by answering the questionnaire anonymously. A follow-up postcard was mailed to each participant two weeks after sending the survey. Usable data were collected from 387 individuals (155 administrators and 232 faculty members). The return rates for the whole sample, administrators, and the faculty members were 65.26%, 74.16%, and 60.42%, respectively. Table 1 presents the breakdowns of the whole sample based on university and status and on length of service and status.

TABLE 1
Cross Tabulations of Variables

UNIVERSITY AND STATUS							
Status	UM	MTSU	ETSU	University TTU	TSU	APSU	Total
Administrator	27	24	34	25	26	19	155 40.1%
Faculty	72	54	35	40	13	18	232 59.9%
Total	99 25.6%	78 20.2%	69 17.8%	65 16.8%	39 10.1%	37 9.6%	387 100%
LENGTH OF SERVICE AND STATUS							
Status	1-6	7-12	Length of Service 13-19		20+	Total	
Administrator	48	23	27		57	155 40.1%	
Faculty	72	47	36		77	232 59.9%	
Total	120 31.0%	70 18.1%	63 16.3%		134 34.6%	387 100%	

NOTE. UM = University of Memphis, MTSU = Middle Tennessee State University, ETSU = East Tennessee State University, TTU = Tennessee Technological University, TSU = Tennessee State University, APSU = Austin Peay State University.

Further, for faculty, there were 11 instructors, 75 assistant professors, 57 associate professors, and 90 full professors. Of these 233 participants, 171 were tenured and 62 were not tenured. Regarding length of service, for faculty, 72 had 1-6 years, 47 had 7-12 years, 36 had 13-19 years, and 77 had over 20 years of service; whereas for administrator, 48 had 1-6 years, 23 had 7-12 years, 27 had 13-19 years, and 57 had over 20 years of service.

Table 1 shows that 99 participants were at the University of Memphis, which represented 25.6% of the present sample, whereas 37 subjects were at Austin Peay State University, which represented 9.6% of the sample. The selection ratio (faculty in the sample/faculty in current university population) for each institution is presented as follows: 14.45% (UM), 12.75% (MTSU), 17.42% (ETSU), 19.52% (TTU), 12.19% (TSU), and 15.81% (APSU). Therefore, the obtained sample in the present study is a good representation of the total population of inference.

Measures

The questionnaire for administrators has 23 items, for faculty members 29 items. The 22 common items (21 survey items and length of service) from both questionnaires were selected for the present study.

These items, which measured different attitudes toward the mission of the university, teaching, research, and the reward systems, were selected based on suggestions in the literature.

Respondents rated these items using a 4-point scale with the following scale values: *strongly agree* (1), *agree* (2), *disagree* (3), and *strongly disagree* (4). Thus, a low score indicates a high level of agreement with the statement. Participants in the study indicated their length of service at the university (expressed in years) using the following categories: (1) 1–6, (2) 7–12, (3) 13–19, and (4) 20 or more.

Results

Data Analysis

In this inquiry's first stage of data analysis, an exploratory factor analysis was employed to identify the major factors in the survey based on data collected from 387 subjects using the 21-item survey. The scree test was used to determine the number of factors to be retained. We employed the varimax rotation to rotate the initial principal components analysis.

The second stage entailed the testing of two general hypotheses using a multivariate analysis of covariance (MANCOVA). The factors identified in stage one will be examined as a function of participants' status (administrators vs. faculty members) while holding participants' length of service in an institution as a covariate (cf. Clark, 1987).

Factor Analysis

The scree test suggested that a six-factor solution was appropriate. These six factors accounted for 56.6% of the total variance. Table 2 presents the six factors, the percent of variance explained by each factor, the factor loading of each survey item, and the Cronbach's alpha estimates of internal consistency reliability for each factor. We will discuss each of these factors.

Research orientation (five items) was identified as the first factor in this survey, which accounted for 19.4% of the variance (Cronbach's $\alpha = 0.74$). The key items included: Faculty members view themselves primarily as researchers and not as teachers. Both teaching and research were important to them. Research offered them the greatest professional satisfaction.

Factor 2 was named *Teaching orientation* and had only three items. These items showed that teaching offered the greatest professional satisfaction, that research interfered with teaching, and that faculty members should have strength in either teaching or research.

Factor 3 dealt with the notion *Rewards influence research*. The five items of Factor 3 indicated that rewards influenced faculty performance, research, and their time and effort on research; faculty had to be productive researchers or lose their jobs; and rewards from the university had more impacts on research productivity than colleague opinion.

Factor 4 was labeled *Rewards influence teaching*. There were only two items: Faculty members must be effective teachers or lose their jobs, and reward structure influences faculty members to devote their time and effort to teaching. Thus, rewards influence research and rewards influence teaching are two separate factors.

Personal interests (three items) at universities were related to Factor 5. Factor 5 indicated that people freely pursued their interests and allocated their professional time. Further, teaching did not interfere with research productivity.

Finally, *Mission of the University* (three items) was related to Factor 6. Factor 6 showed that research and teaching were both important missions of the university and that research and teaching were mutually supportive. Administrators and faculty members identified six distinctive concepts measured in the survey.

MANCOVA

Participants' Status. Table 3 presents the means, standard deviations, and correlations of variables. The six factors identified in Step one were analyzed using a MANCOVA. The results showed that the main effect of participants' status (administrators vs. faculty members) was significant [$F(6, 268) = 8.24$, Wilks's lambda = 0.84, $p = 0.000$]. Sixteen percent of the variance can be explained by these variables.

Further univariate F -tests ($df = 1, 273$) displayed that the differences mainly came from the following factors: teaching orientation [$F = 12.53$, $p = 0.000$], rewards influence teaching [$F = 7.36$, $p = 0.007$], and mission of the university [$F = 13.39$, $p = 0.000$] (please see Table 4). Thus, administrators differed from faculty members on these three factors. Hypotheses 1 and 2 were supported by the present data. However, they did not have significant differences concerning their research orientation, rewards influence research, and personal interests.

Discussion

In this study, we identified six distinctive factors in our survey: (1) research orientation, (2) teaching orientation, (3) rewards influence research, (4) rewards influence teaching, (5) personal interest, and (6) mission of the university. Educational leaders do not differ significantly

TABLE 2

The Six Factors of Attitudes Toward Research and Teaching

Survey Item	Loading
Factor 1: Research Orientation	
1. Faculty members view themselves primarily as researchers	0.73
2. Faculty members view their role in higher education as an integration of both teaching and research	0.73
3. Research offers the greatest professional satisfaction	0.69
4. Faculty members view themselves primarily as teachers	-0.53
5. University should recruit and retain only those faculty members who exhibit strength in both teaching and research	0.44
Percent Variance Explained = 19.4%	
Cronbach's alpha = 0.74	
Factor 2: Teaching Orientation	
6. Teaching offers the greatest professional satisfaction	0.71
7. Research interferes with teaching	0.65
8. There should be a place for some faculty members who exhibit strength in either teaching or research, but not both	0.62
Percent Variance Explained = 11.7%	
Cronbach's alpha = 0.61	
Factor 3: Rewards Influence Research	
9. Rewards are the most effective means of influencing faculty performance	0.66
10. The reward structure influences faculty members to devote their time and effort to research	0.57
11. If receipt of tenure and promotions were not contingent on research, most faculty members would devote less time and effort to this activity	0.55
12. Faculty members must be productive researchers or lose their jobs	0.50
13. Colleague opinion acts as a greater stimulus to faculty productivity in research than do rewards from the university	-0.44
Percent Variance Explained = 7.6%	
Cronbach's alpha = 0.56	
Factor 4: Rewards Influence Teaching	
14. Faculty members must be effective teachers or lose their jobs	0.79
15. The reward structure influences faculty members to devote their time and effort to teaching	0.72
Percent Variance Explained = 6.7%	
Cronbach's alpha = 0.53	
Factor 5: Personal Interest	
16. Faculty members feel free to pursue their primary academic interest (within the context of research or teaching)	0.75
17. Personal interest of the faculty members acts as the most influential factor in determining how they allocate their professional time	0.62
18. Teaching interferes with research productivity	-0.55
Percent Variance Explained = 5.9%	
Cronbach's alpha = 0.77	
Factor 6: Mission of the University	
19. Effective teaching is essential to the mission of my university	0.60
20. Research and teaching are mutually supportive activities	0.59
21. Research is essential to the mission of my university	0.58
Percent Variance Explained = 5.4%	
Cronbach's alpha = 0.46	

TABLE 3
Means, Standard Deviations, and Correlations of Variables

Variables	<i>M</i>	<i>SD</i>	2	3	4	5	6	7	8
1. Status			-.04	-.06	-.24*	.09	.17*	.02	.23*
2. Length of Service				.15*	-.14*	-.07	.13*	.05	.05
3. Research	12.73	2.62			-.50*	.01	-.10*	.10*	.39*
4. Teaching	6.68	1.80				.25*	-.06	-.22*	-.37*
5. Reward-R	12.09	2.41					-.21*	-.15*	-.08
6. Reward-T	5.18	1.33						.09	.09*
7. Interest	7.08	1.42							.15*
8. Mission	4.52	1.37							

NOTE. *N* varies between 307 and 387. All decimals have been omitted for correlations. Administrators and faculty members rated these items on a 4-point scale. A low raw score indicates high agreement with the statement. Status: Administrator = 0, Faculty = 1; Length of Service: 1–6 years = 1, 7–12 years = 2, 13–19 years = 3, 20 or more years = 4. Reward-T: Reward-Teaching, Reward-R: Reward-Research.

* $p < 0.05$.

TABLE 4
Differences Between Administrators and Faculty Members

Variables	Administrator	Faculty	<i>F</i>
1. Research	13.03	12.65	0.17
2. Teaching	7.11	6.30	12.53*
3. Reward-Research	11.79	12.01	3.32
4. Reward-Teaching	4.85	5.46	7.36*
5. Interest	7.03	7.09	1.38
6. Mission	4.26	4.91	13.39*

NOTE. Univariate *F*-tests with (1, 273) *df*.

* $p < 0.05$.

from faculty members on research orientation, rewards influence research, and personal interest but do differ from professors on teaching orientation, rewards influence teaching, and mission of the university.

Administrators tend to believe that research and teaching are mutually supportive and that both research and teaching are the mission of their university. They also tend to believe that faculty must be effective teachers and that reward influences teaching. They tend to have a weak endorsement of the notion that teaching offers satisfaction, that research interferes with teaching, and that faculty should have strength in either teaching or research.

Faculty members, on the other hand, are less inclined to agree with the mission of the university that both teaching and research are essential parts of their jobs. They believe that they have not been rewarded for their teaching activities. Further, they believe that they enjoy teaching, that research interferes with teaching, and that they should be required to do either teaching or research, but not both.

Due to these differences and the attitude-behavior consistency model (Ajzen & Fishbein, 1977), administrators and faculty members may develop different behavioral patterns in an academic institution. It is speculated that administrators may continue to expect professors to increase their research productivity while carrying heavy teaching loads, because they view both teaching and research as important missions of the university. Both administrators and faculty members agree that rewards influence research productivity. However, administrators believe that professors' teaching effectiveness is rewarded, whereas professors do not.

It is possible that university professors may have to devote more time to research and publication than to teaching activities so that they will be reviewed favorably by administrators and peers when they are up for tenure and promotions. It is clear to these professors that research productivity will be related to the real rewards in the academic setting (i.e., tenure, promotion, and merit pays).

According to Gomez-Mejia and Balkin (1992), the number of job changes produces the largest monetary gains, and the highest correlate of job moves is top-tier publications. Therefore, professors are better off with a strong research-oriented resume. The key reason is that research leads to a high level of external prestige, visibility, and reputation extended beyond the campus. J. Dennis Huston stated that "teaching doesn't bring one job offers; publishing a book does" (Toch, 1990, p. 12).

The images of these regional state universities may have remained the same to many educational leaders, the public, and students. Further, these teachers-colleges-turned-state-colleges and universities may appeal to certain types of students. It is possible, in a few short years, that the majority of professors may become research-oriented professors, and regional state universities may move toward and/or become research universities, causing all universities to become more homogeneous than ever. These universities may not serve the needs of the state and the students.

Moreover, current methods of education may not provide the education necessary for professional personnel of the twenty-first century. For example, major changes in management education may also include changes in curriculum (international business, technology management, and interdisciplinary study), pedagogy (computer simulations, field studies, and mentors), and operational education (Porter & McKibbin, 1988). These changes deal not only with what we teach, but how we teach it.

With major changes in these directions, it is expected that the measurement and evaluation of teaching effectiveness will be changed dramatically in the future (Tang, in press). Universities will expect professors to conform to the norms of the institutions. If there is a good match

between the university's norm and professors' preference for teaching and research, then, eventually these professors will experience a high level of satisfaction and will decide to stay.

The present study has several limitations. First, we did not examine administrators and faculty at community colleges, the University of Tennessee system, and private universities and colleges. Second, we did not examine the relationships between their attitudes and actual teaching effectiveness and research productivity.

There is no reason to believe that this sample is atypical of regional state universities. Thus, it is reasonable to expect that the present findings may be generalizable to the broader national population of "regional universities." Future research may further verify the present findings in other regional universities in the United States.

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Review Essay

The Charitable Nonprofits, by William G. Bowen, Thomas I. Nygren, Sarah E. Turner, and Elizabeth A. Duffy. San Francisco: Jossey-Bass, 1994. 288 pp. \$39.95.

Inside the Boardroom, by William G. Bowen. New York: Wiley, 1994. 184 pp. \$35.00.

PETER FRUMKIN, University of Chicago

The independent or nonprofit sector is a conglomeration of over one million different organizations and today represents one of the fastest growing parts of American society. Universities and colleges, because of the endowments they control and the tuition revenues they collect annually, make up some of the largest and most stable organizations in this sector, which includes everything from homeless shelters to arts organizations to health clinics. William Bowen, the former president of Princeton University and now the president of the Andrew W. Mellon Foundation, has written two new, comparative books, one that examines patterns of institutional growth and decline within the nonprofit sector and another that probes the responsibilities of trustees in managing large organizations. By situating colleges and universities within the broader nonprofit landscape, Bowen manages to enlarge the frame of reference within which discussions of higher education usually take place.

The goal of *The Charitable Nonprofits* is to provide a road map through the nonprofit sector and to explore the developmental pathways of nonprofit organizations. Instead of trying to measure and analyze the entire sector, Bowen begins by limiting his study to *charitable* nonprofits covered by section 501(c)(3) of the Internal Revenue Code, which comprise about half of all tax-exempt organizations. Excluded from study is the myriad of civic, labor, and cooperative organizations that also enjoy tax-exemption but are not eligible to receive tax-deductible charitable contributions. Within the charitable subfield, Bowen and his three associates from the Mellon Foundation narrow their focus one step further and consider only larger organizations, charitable nonprofits

with revenues over \$25,000. This focus excludes small community-based charitable nonprofits, but has the merit of directing the study toward the part of the sector that is most visible and conducts the most essential services. The 122,221 organizations that meet the criteria for inclusion in the study constitute about 12% of the entire nonprofit landscape. After defining the purview of the research, the book then sets out to describe the central features of these large charitable nonprofits, the rates of institutional formation and growth within selected fields over time, and the factors that shape the success and failure of charitable organizations.

Some of the best analytical work in the book is devoted to institutional dynamics within higher education. Detailed charts provide a clear picture of three waves of institutional formation. Bowen shows how liberal arts colleges emerged between 1830 and 1860, how research universities experienced a surge from 1870 to 1900, and how community colleges were formed in great number during the 1960s and 1970s. Beyond providing clear graphical presentations of major trends within higher education, Bowen develops succinct and usually common-sense explanations for the observed trends. Bowen accounts for the surge in the formation of research universities by pointing to the emergence of applied science within an increasingly industrialized society and to the passage of federal legislation in 1862, which granted each state 30,000 acres for each senator and representative in Congress to be used in support of higher education. In the thirty years following this legislation, more than 40 percent of all doctorate-granting research universities were formed. Bowen's comparative framework allows one to see how the forces that drive institution formation within higher education have been dramatically different than those that shape the birth rates of other kinds of nonprofit organizations, some of which have been influenced by changes in the tax code and intergenerational transfers of wealth.

The core chapters of *The Charitable Nonprofits* explore the relationships among a nonprofit organization's size, its field of activity, its sources of revenue, and its age. Within a comparative framework that includes museums, performing arts organizations, historical societies, and institutions of higher education, Bowen considers the relationship between various combinations of his four institutional factors. One of the chapters in this section, for example, considers how an organization's revenue sources are shaped by its field of activity. This is a significant question because organizations with a diversified stream of revenues from private gifts, government grants, and earned income tend to be more stable over time than organizations having one single source of revenue. Not surprisingly, Bowen's research reveals that colleges and

universities depend far more on earned income than do other charitable nonprofits. Performing arts organizations receive a greater proportion of their revenues from government than do liberal arts colleges, but far less than research universities, which depend significantly on government-sponsored research. By pursuing his investigation within a framework that cuts across a range of nonprofit organizations, Bowen is able to highlight both the special challenges and advantages that universities and colleges confront. This comparative exercise, as well as many others throughout the book, is a useful antidote to narrower studies that start and end with specialized data relating only to colleges and universities.

Bowen returns to the field of higher education in a later chapter and considers closing or failure rates between 1981 and 1991. The number of failed institutions turns out to be surprisingly high. What is truly interesting is not the fact that a total of 408 institutions of higher education failed during this decade, but that the annual exit rate of 2% among institutions of higher education is approximately the same as that of ballet companies, operas, and theaters. This is an unexpected finding, given the fact that private colleges and universities appear to be large, stable institutions possessing significant assets, especially when compared to many financially frail arts organizations. However, Bowen reveals that 90% of the failed colleges and universities were unaccredited, more dependent on tuition revenue, and therefore more subject to failure due to declines in student enrollment.

For all its useful charts and tables, however, Bowen's effort suffers from at least one critical shortcoming. Bowen's research is based almost entirely on a large government database that contains very comprehensive but superficial information. Because the Internal Revenue Service is not interested in social science research, it collects only rudimentary information. This in turn leads Bowen to focus his research on the interaction of a small number of descriptive variables. Instead of building hypotheses, defining variables, gathering data, and testing hypotheses, Bowen starts with the four main variables in the IRS database and probes the relationships among them. This way of doing research has the clear disadvantage of allowing the data to dictate the direction of the research.

It is also unfortunate that Bowen and his three associates did not conduct any original survey or ethnographic research of their own to fill some of the holes left by their overly broad government data. Supplemental data on charitable nonprofits might well have improved the book substantially by allowing Bowen to probe more deeply the differences and similarities that exist among nonprofit organizations. In addition, a few case histories sprinkled through the middle chapters would have

usefully grounded the discussions more fully in specifics and allowed the comparative framework to work more effectively.

Ironically, Bowen's other recent book, *Inside the Boardroom*, which examines the role of trustees and directors in the governance of both business firms and nonprofit organizations, is laced with anecdotes, suggestions, and precepts drawn from case studies of board leadership. Bowen has extensive personal experience serving on boards. He has been a director of major corporations, including American Express, NCR, and Merck and has also served as a director or trustee of many nonprofit organizations, including among others, the Smithsonian Institution, the Sloan Foundation, Princeton University, and the Center for Advanced Study in the Behavioral Sciences.

Drawing on this wealth of experience, Bowen devotes considerable attention to defining clearly the essential functions of a board, such as hiring and firing the CEO, long-term strategic planning, ensuring that needed resources are in place to achieve objectives, monitoring the performance of management, and nominating suitable candidates for election to the board. Bowen is able to abstract out twenty essential principles or what he terms "presumptive norms" for effective board governance that cut across all organizations. These include a focus on courage and empathy as key attributes when selecting outside directors, the value of board diversity as long as it does not sacrifice agreement on the institution's mission, and the need for term limits on board service and mechanisms for monitoring the performance of directors. Most of the other norms are common sense, but Bowen manages to illustrate their importance within different organizational contexts — not just within the context of managing a university.

The informal tone and clear organization of this book make it easy to read and navigate. *Inside the Boardroom* is competing in a crowded field, however. Over a dozen books have been published within the past three years on nonprofit board governance. What differentiates Bowen's effort from existing books is the wealth of experience that underlies the work and its cross-sector approach. The desire to write something that applies to both business and charitable organizations leads Bowen to condense his ideas to their most important and universal components. The differences between business firms and nonprofit organizations can be boiled down to the fact that for-profit boards must focus on enhancing shareholder value whereas nonprofit boards must remain committed to an organization's mission no matter what the cost. Beyond this essential difference, effective boards — regardless of which sector they operate within — are best off when they follow the same set of rules and precepts.

In the end, Bowen's two books share the common feature of placing the study of higher education within a broader context. In *The Charitable Nonprofits*, patterns of institutional growth and decline of colleges and universities are compared to those of other nonprofit organizations, such as museums, performing arts organizations, and historical societies. In *Inside the Boardroom*, a discussion of the forms and functions of boards is pursued through cases that bridge universities, charities, and business firms. The expansion of the organizational context used in the study of higher education could have turned out to be mere distraction. In these two books, however, a new perspective on the institutional dynamics and leadership needs of colleges and university emerges, one that will help enlarge the frame of reference of scholars interested in higher education and encourage more comparative work in the future.

Book Reviews

Faculty Work and Public Trust: Restoring the Value of Teaching and Public Service in American Academic Life, by James S. Fairweather. Needham Heights, MA: Allyn & Bacon. 208+ pp. \$34.95

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At first blush it may seem that James S. Fairweather's recent book is another installment of a growing list of diatribes that decry the perceived neglect of undergraduate education and faculty members' lack of commitment to the local community. But on closer inspection it becomes clear that while seemingly on the bandwagon, Fairweather is taking a much closer look at higher education in general and at faculty in particular than do most other works in the genre.

Fairweather analyzes data from the 1988 National Survey of Postsecondary Faculty (NSOPF) to demonstrate that faculty in every type of four-year institution find themselves being rewarded mainly for research productivity more so than their teaching activities. As a consequence of this orientation, he asserts, colleges and universities and their faculties are not upholding their responsibility to society. This is especially the case when higher education finds itself in what Fairweather calls "The New Economy," one in which he feels colleges and universities ought to be more centrally positioned. What he advocates, then, is that if faculty are not going to meet their commitment to the public via a renewed commitment to teaching (which is what he would prefer to see, and he argues that the economic benefits that derive to a locale as a function of having an educated workforce are grossly underestimated and underappreciated), then they at least ought to be willing to contribute to the "public trust" by engaging in increased consulting activities and applied research, all with an eye toward enhanced technology transfer. In turn, this technology transfer could boost the local economies in ways that have yet to be realized.

Fairweather's use of data and overall structuring of the problem are sound. He employs the national survey data as a starting point to provide the context for understanding faculty roles and subsequently weaves discussions of salient issues (such as socialization of new faculty and the nature of academic consulting and technology transfer) as well as case studies into the text to help illustrate various points. He then proceeds to the final chapters and a discussion of policy implications for state and federal constituencies as well as the academy itself.

One of the major premises of Fairweather's argument is that faculty consulting and involvement in applied research (and subsequent technology transfer) should be redefined as a form of public service and be rewarded within institu-

tions. But left unresolved is that faculty stand to reap considerable financial benefit from such a change — not from institutions but from the external parties. Whether construed as public service or anything else, unless faculty are expected to consult for free (in which case there would be no need for redefinitions because these activities would then represent bona fide public service), the public perception may well be that faculty who consult are seeking to line their own pockets. Clearly this would be the case when faculty earn a specified fee for performing a specific service on behalf of a particular company or agency. Likewise with applied research. Unless faculty sign away their rights to any intellectual property up front (in which case they are then simply engaged in a form of consulting), they stand to earn a significant amount of money from their research activities via spin-off companies and the like. Admittedly, the possibility exists that such applied research might stimulate the local economy, maybe enough so that the public concern that faculty are already spending too little time teaching undergraduates may be assuaged. In the interim, however, and especially if economic stimulation and development are not fully and quickly demonstrated, faculty and their institutions would do well to prepare for a continuation of the criticisms currently being levied.

Lack of resolution does not imply that Fairweather leaves this issue wholly unaddressed. He provides NSOPF data to show that most faculty do not spend a lot of time engaged in consulting, nor do they earn much money from it. But whether the persuasiveness of his argument can quell the public criticism likely to accompany such a change in professional priorities remains to be seen, especially because the ties between consulting, applied research, technology transfer, and regional economic development are tenuous at best.

Given the manner in which the book is structured, the question of anticipated audience is also important. Judging by the title as well as the last two chapters, in which he identifies policy issues both “external” and “internal” to higher education, one would assume that he has both audiences in mind. Writing for each of these groups simultaneously is not an insurmountable task, but one must strive to ensure that both groups’ needs are met. Occasionally *Faculty Work* gets caught in the middle. Certainly not every administrator or faculty member within academe nor every CEO or board member of a local manufacturing firm needs to read every word of the book in order to derive some benefit from Fairweather’s work and observations. Still, a more sophisticated treatment of the data and discussion in some sections might better serve those familiar with higher education, whereas less sophistication in other sections might be appreciated by a wider audience. But again, any reader will come away from the book with plenty to think about regarding today’s four year-colleges and universities and their faculties.

In this age of increasing demands for accountability along with burgeoning attacks on tenure, a serious examination of how faculty spend their time, why certain professional activities have priority over others, and whether all types of institutions find themselves being enticed by the lure of “big time” research is well timed and stands to make a contribution to the discussion as to what appropriately ought to be considered faculty work. Though the argument might occasionally waver and the audience might not be exactly pin-pointed, *Faculty Work and Public Trust* helps to clarify a number of the relevant issues and suggests alternative ways of thinking about them.

On the Limits of the Law: The Ironic Legacy of Title VI of the Civil Rights Act, by Stephen C. Halpern. Baltimore, MD: The Johns Hopkins University Press, 1995. 391 pp. \$18.95

M. CHRISTOPHER BROWN II, The Pennsylvania State University

In 1964 Congress passed Title VI of the Civil Rights Act to insure that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, or be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." It was this legislation that brought pressure on the Office of Civil Rights in the Department of Health, Education, and Welfare (HEW) to dismantle dual systems of higher education. Albeit, this legislation did not center on higher education desegregation, its administrative implementation guidelines declared that in administering a program regarding which the recipient had previously been discriminated, the recipient must take affirmative action to overcome the effects of prior discrimination. It was this mandate that gave the federal government oversight of the desegregation of public higher education. The granting of authority was easy. It was the interpretation and implementation of the law that would lead to decades of litigation.

Stephen Halpern, a professor of political science at the State University of New York at Buffalo and an outspoken scholar on the historical significance and legal status of historically black colleges and universities, has provided higher education with a magnum opus that explores the evolution and consequences of the efforts to use the legal system to guarantee equal educational opportunity. In so doing, the text extends beyond a chronological briefing of educational case law into the underlying assumptions, motives, and immediate reactions to judicial mandates directed at public higher education. Halpern also takes every opportunity to clarify the interpolation between academe and public policy as well as the constrictions, distortions and subjectivity of "translating a social problem into the 'language' of the law" (p. ix).

By and large, the book chronicles the historic interplay between HEW's bureaucratic attempts to enforce Title VI and the judiciary's intent to craft what it perceived as "constitutional standards for measuring racial discrimination in schools" (p. 2). Without question the interplay begins and continues outside of Halpern's timeline of the John F. Kennedy through the Reagan years. Consequently, it is unclear whether or not utilizing a top-down approach to analyzing the ongoing social history of African Americans in public higher education is particularly insightful. Few areas of law are as perplexing and confusing as the case law that surround desegregation in higher education. The differing perceptions of the courts, government administrators, and state policy makers reveal an abyss of nothingness when it comes to defining the remedy necessary to overcome the continuing effects of historical segregation in higher education institutions.

However, prior to *On the Limits of the Law*, there have been no noteworthy studies of the desegregation litigation in postsecondary education save individual institutional histories. Jean Preer, in *Lawyers v. Educators: Black Colleges and Desegregation in Public Higher Education*, broaches the issue of the social

impact of desegregation on certain black colleges; however, there is no historical analysis of the legal standards in the case law and/or how they evolved [2]. Halpern argues that litigation has been the centerpiece in the struggle for equal educational opportunity, particularly in academe. As a result, he argues, there is a tendency to commit four fallacies: (1) to depend too heavily on "the legal process to transform educational concerns," (2) to address all issues of inclusion surrounding African Americans as legal or court ordered, (3) to engage in redefinition of the struggle for equal opportunity in a way that delimits political and economic power, and (4) to ignore new inequalities of race, ability, financial status, and socioeducational exposure (p. 13).

Halpern states, "From the very inception of Title VI, it was unclear what compliance with the statute required. The statute did not define discrimination based on race or national origin — it merely outlawed it" (p. 295). Consequently, as he discusses, there is a lack of clarity regarding the definition of desegregation and the criteria for compliance. Higher education is without a prevailing legal standard that clearly articulates what it means for postsecondary education to be desegregated or to have dismantled dual educational structures. Accordingly, Brown and Hendrickson argue, "This ambiguity has allowed many states to circumvent or misinterpret the current legal standards of compliance handed down by the Supreme Court in the *United States v. Fordice* ruling. Moreover, because the findings in past desegregation cases are ill understood by policy makers it prevents many states from establishing and attaining achievable compliance goals" [1].

Inasmuch as desegregation has emerged as a major factor in policy at all levels of education in the past two to three decades, the social forces that led to the initial desegregation litigation, the subsequent development of legislation, and the issuance of compliance regulations must all be examined to understand fully the intent of desegregating public higher education. *On the Limits of the Law* comes closer than any preceding work in documenting the multiple discourses regarding higher education desegregation. In the text we hear from black colleges, the Justice Department, the NAACP, black and white college presidents, alumni, Supreme Court judges, United States presidents, government bureaucrats, academicians, and researchers regarding integration, access, equity, equality, opportunity, and what it means to disestablish segregated systems of higher education.

Among the many strengths of the book is the view of political hegemony that Halpern brings to the perennial discussion of racial equality and access in the collegiate corporation. It is clear that this venture was thoroughly conceived and constructed. He carefully fills in the details of each of the presidential periods discussed — "The Kennedy Legacy and Legislative History" (p. 15); "The Johnson Years: Implementing and Redefining the Right to Equal Educational Opportunity" (p. 42); "The Nixon-Ford Years: Litigating against the Political Backlash" (p. 81); "Carter: Litigation and the New Civil Rights Priorities" (p. 137); and "Reagan: The Irrelevant Formalism of the Legal Battles" (p. 190). Halpern's attention to detail heightens the readers' awareness and informs them of the political and social climate of the country at the time, the stature or failings of the academic institutions involved, the temperature of national race relations, the urgency of the economy, and the mandate for scholastic and technological advances from an educated citizenry, regardless of race. There are few omissions, if any, in *On the Limits of the Law*.

The text has a constant focus on the evolving relationship between the HEW guidelines for collegiate desegregation and the judicial standards in ongoing litigation. The discussion outlines how in 1964 HEW married the Title VI mandate with the constitutional protection of the Fourteenth Amendment. Halpern states, "Linking the two legal standards was a critical policy decision, ensuring that courts would be entangled in the administrative enforcement of Title VI" for decades (p. 44).

Halpern further outlines the myriad court cases surrounding equalization of postsecondary education facilities and opportunities and pays particular attention to the *Adams* years. The text manifests his awareness of the significance of this twenty-year suit. Cognizant that the *Adams* suit no longer exerts legal authority over public policy, he turns swiftly to the most current court battle in Mississippi, the *United States v. Fordice*. Halpern defines *Fordice* as the "jurisprudential legacy" of desegregation litigation (p. 239). He suggests that the *Fordice* case has established a new judicial precedent for the "desegregation" of higher education across the country. This discussion embraces the financial implications for public historically black colleges and addresses the flexibility of current constitutional standards that allow the federal courts to maintain jurisdiction over the processes and justifiability of collegiate missions and traditions. It is naive, however, in light of the preceding chapters, which detail the bureaucratic and judicial entanglements of interpretation, that Halpern would conclude with the assertion that the *Fordice* ruling will serve as the guide to developing state policies that can serve to eliminate segregated systems of higher education.

Halpern, however, fails to provide educators and policymakers with any new propositions on how higher education desegregation might be achieved in light of the existing conflict in the public law-presidential policy-black college-equal educational opportunity matrix. It is this matrix that is of increasing importance to national and state-level policy makers, higher education officials, administrators, faculty, and researchers. Given the complexity and ambiguity surrounding Title VI as well as any other legal mandate, it is necessary for academics to know the history of the remedy that provides impetus for national higher education desegregation policy. In the clear and informative fashion which *On the Limits of the Law* contributes to the body of knowledge about desegregation litigation in higher education, it has fulfilled a most useful purpose.

Interpreting and applying Title VI will remain an arduous task for both the federal courts and the Department of Education. The complex history and contemporary issues rooted in the desegregation agenda will not disappear. Fortunately, *On the Limits of the Law* informs higher education's knowledge about collegiate desegregation, while detailing the excessive entanglement between the administrative arm of government and the federal judiciary. Moreover it enriches the debate surrounding the future role of black colleges in the academic structure.

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Restructuring Higher Education, by Terrence J. MacTaggart and associates, San Francisco: Jossey-Bass, 1996. 260 pp. \$31.95

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This is an important, yet frustrating, book. The importance emanates from its being one of the first, nationally published works on governance restructuring, and in some detail it describes restructuring in Alaska, Maryland, Massachusetts, Minnesota, and North Dakota. The author attempted to integrate these disparate cases into a conceptual totality in order to help policy practitioners examine what worked as the result of restructuring. The frustration lies in an uneven case study presentation and an incomplete analysis despite the utility of the final chapters, which offered a model for successful restructuring and suggestions for academic leaders and policy makers.

In this book governance restructuring was used synonymously with reorganization and restructuring, and it was defined as "shifts in authority" among those who "oversee the way public, and sometimes private, higher education is led, funded, and managed" (p. xi). The book is organized into context for change, five case studies, and lessons of restructuring. Included are five cases and four additional, individually authored chapters by MacTaggart, R. J. Novak, and A. C. McGuinness, Jr. MacTaggart's two chapters include an introduction on why governance restructuring has failed to improve the quality and performance of the students as well as the educational process, itself. His final chapter offers suggestions for policy makers and executives who carry out the dictates of restructuring. Novak presents an informative history of governance structures in higher education and an organizational analysis of the methods and consequences of governance restructuring. Following the case studies, McGuinness suggests that higher education systems are likely to remain, albeit in altered form because of restructuring, due to their many advantages both to policy makers and higher education leaders.

The primary problem with the book is the case study treatment. Specifically, there are issues involving the theoretical approach, method, and organization. Those who are familiar with case studies recognize that cases serve as a data base for a subsequent analysis, so it is necessary to have at least minimal comparability in approach. Three cases were written by practicing system heads, who themselves could be considered as part of the restructuring, thus subjecting the cases to suspicion of bias. Four of the five cases contain sparse references to authoritative works on the particulars in the state, and in the face of few statements about method, such as the position identity and number of interviewees, documents gathered, and news sources cited for local and statewide information, one is left with uneasiness about the validity of the information presented. Three of the cases utilize essentially a structural approach by examining context, structural features such as boards and agencies, major actors in higher education and government, and decision making, including politics. One case cites interviews and uses a developmental approach with references to pathfinders (Sheehy's book (1982) on using organizational change to define new career directions), mid-life transitions, stages of grief, and organizational loyalty. Another case takes a completely different approach by using a political analysis that includes three alternative theoretical explanations of restructuring.

Given the wide variability in approach, it is not surprising that the methodology is inconsistent. As an author of case studies about policy decisions and governance, this reviewer can assert that preparing cases is deceptively simple. The lack of quality in the case study literature attests to the need for thoughtful preparation in case study design, precision in method, and clarity in organization to permit readers to make comparisons and follow the author's logic and development. Because of variability in approach and method, it is not surprising that, in this volume, the diversity of the cases made it difficult for the reader to make cross-case comparisons and generalizations. One exception is presented in a section on "lessons learned" as a result of restructuring, which appears near the end of four of the five cases.

The third and final part of the book, appropriately titled "Lesson of Restructuring," is of considerable interest, despite the multiple problems identified above. McGuinness formulates principles for future systems, such as having explicit objectives and decentralizing decision making to the campus. In a hypothetical model of governance restructuring, McGuinness explains that a new structure had been created by a recently elected governor who transformed the higher education structure from a statewide coordinating board to a statewide higher education policy and service corporation. The new legal entity would have a corporate board with a system chancellor and individual lay governing boards with presidents chosen by the local boards. The redesigned system had decentralized campus governance with incentives for promoting cost effectiveness (so often missing in current state structures); redefined system responsibilities emphasizing the strategic place of higher education in the state; a state commitment to long-term investment funding keyed to system support at the rate of inflation "plus an allowance for enrollment growth" (p. 222); performance criteria developed by the university board; and utilization of consumer-driven processes in new delivery systems, including partnerships with schools, nonpublic institutions, and institutions outside the state. The final chapter by MacTaggart contains information for policymakers and campus executives. Some references to the cases are utilized, but the chapter would be more authentic if greater use had been made of the cases. In the "Lessons for Policy Makers" section, for instance, three of the four cases are not mentioned at all.

Despite significant limitations, this book adds to the scant literature on statewide governance restructuring in higher education. Even though the potential audience for the book are "professionals in higher education and state government," rather than scholars, researchers, and analysts, this book will prove beneficial. Had attention been given to the shortcomings described above, the book could have been of great value to both the scholarly and policy communities.

References

Sheehy, G. 1982. *Pathfinders*. New York: Bantam Books.

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The Modern Integration of Research Activities with Teaching and Learning

No issue is more basic in modern higher education than the relationship between research and teaching. And no issue occasions more superficial thought and retrogressive criticism both outside and inside the academy. In the United States, but not there alone, an incompatibility thesis has increasingly been voiced during the 1980s and early 1990s. We repeatedly hear assertions that when university professors do research they avoid teaching, that the time they spend on one is time taken from the other, that deep interest in research entails low interest in teaching, and, notably, that when academics do research they abandon students. Though popularized mainly by outside critics, we find this oppositional view even reflected in standard survey questions posed by academics in studies of academics. Professors are asked: are you interested in research or in teaching? Do you spend your time in research or in teaching? Which does your institution emphasize? Universities seemingly accept the thrust of the incompatibility thesis when they defensively answer criticisms with lame rebuttals that professors really do not run off to do research as much as is claimed, that critics can find professors in "the classroom" if they only look hard enough and sympathetically comprehend all the many things that academics have to do.

A contrary perspective, here developed from cross-national research, offers a better purchase on the role of research in education [8, 9]. A

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broad compatibility thesis, one that applies to national systems of higher education generally, asserts that research activity can and does serve as an important mode of teaching and a valuable means of learning. The thesis can be extended by the warranted observation that research-based teaching and learning become more important in higher education with every passing decade. In its strongest and most normative form the thesis becomes a claim that student involvement in research is an efficacious way to educate throughout the educational system the great mass of students, as well as the elite performers, for the inquiring society into which we are rapidly moving.

The following analysis first anchors the compatibility thesis in an ideal-type concept of a research-teaching-study nexus. I then offer a brief historical overview of how close approximations to the nexus became organizationally embedded in universities, first by means of the German nineteenth-century construction of what in retrospect we can call "the academic research group"; and then, under twentieth-century conditions, by the American addition of "the advanced teaching group" within a graduate-school framework. This latter organizational enactment, revealed by cross-national comparison of the basic units of modern universities, is a critical component of the comparative advantage that American universities achieved in the last half of the twentieth century. A third section points to the possibility of much greater use of research-based teaching and learning in U.S. undergraduate programs and refers to reform efforts in American elementary and secondary education that stress student involvement in research. Overall, the compatibility thesis highlights an inquiry model of education.

A full-fledged inquiry model redraws the main fault line in higher education. Instead of the dichotomous distinction between research and teaching that is now so common, it distinguishes types of institutions and educational levels in which research, teaching, and learning are closely linked from those settings where they are separated. The incompatibility thesis is then seen as simplistic, overlooking critical linkages. As a guide for reform, it points in the wrong direction, not serving well either the general society or the academy. Instead of fewer, more educational sites should be constructed as places of inquiry.

No effort is made here to refer to the existing American literature on the research-teaching connection. That literature is centered on undergraduate "teaching," a faculty activity located primarily in the undergraduate lecture hall and undergraduate instructional classroom. "Research" is then viewed as a separate faculty activity, one that may be quite removed from teaching and opposed to it in the use of academic

time. I deliberately do not use this usual way of framing the research-teaching connection. Rather, I want to construct an imagery that is rooted first of all in the teaching and learning that takes place in the advanced laboratory (or seminar) and especially that which takes place in the course of dissertation research. Let us examine a “research-teaching-study nexus” in which three activities are closely fused, a nexus in which engagement in research — or inquiry, more broadly — is the means of teaching and the pathway offered for student learning.

The Research-Teaching-Study Nexus

In every major modern national system of higher education, some academics routinely use research activities as a powerful mode of instruction and a means of student involvement. In departments, research centers, and even in such interdisciplinary programs as environmental studies and African studies, professors assemble students in laboratories and seminars to pursue research agendas. Prototypically, a professor and a group of students engage in a joint research project or agree on what different but allied topics the individual students will pursue and what methods they will use. Members of the seminar or the laboratory report back to each other in periodic meetings and informal conversations and explain the tentative results of their inquiries, including blind alleys and trivial outcomes. Much discussion and criticism ensues, led by the professor or another member of the academic staff.

In such settings, common in advanced higher education, teachers clearly teach by means of research activities, and students are engaged in the educational process via those activities and learn through that engagement. Dissertation research, generally pursued after seminar or laboratory participation, even more powerfully provides teaching and learning organized around research activity. The student pursues research for one or more years as the primary means of learning; from initial prospectus to finished dissertation, members of the academic staff guide and supervise the various stages of the student’s effort.

Academics who have taken research-based degrees, especially the Ph.D., and whose normal work includes much research-based teaching will find the above description a commonplace observation. Its familiar patterns are part of their conventional wisdom, the backbone of their assertion that research and teaching must be kept together. But in many settings now found in universities and colleges the connection is greatly loosened, and students may be only marginally involved or not involved at all. Professors may spend part of their time in esoteric research and

then spend another part lecturing from codified materials, textbook and all, to beginning and intermediate students whose elementary grasp of subjects places them far from research frontiers. Traditional utterances by academics about their need to engage in research and teaching, voiced by academics in every modern society, can then unwittingly support the claim that students are left out, especially when universities supply one large lecture hall after another where students in the thirty-fifth row can just about make out the face of the teacher, peering at her as if through the wrong end of a telescope.

A construct that points to research-based learning as well as research-based teaching is called for, a three-way conception that includes students and their learning as a primary element. As an ideal type, the concept of a "research-teaching-study nexus" highlights a complete blending of research activities, teaching activities, and study activities, an intermingling so thorough that it is hard to tell where one ends and the other begins. In this form of education, research activity is the glue that holds together teaching and learning. Through research the professor teaches and, simultaneously, the student studies and learns. Research integrates teaching and learning.

The concept of a research-teaching-study nexus has historical echoes in the 1810 formulations of Wilhelm von Humboldt. In the words of Margarita Bertilsson, Humboldtian thought was an "extravagant ideology" [3]. Humboldt sought to connect everything to everything else in four "unities": not only should the reformed German university of the nineteenth century unite research and teaching but it should also unite through philosophy the various empirical sciences and unite science and general upbringing and unite science with universal enlightenment. Underlying all these desired unities, however — especially the unity of research and teaching — would be the commitment to discovery. Humboldt saw higher education as something quite different from elementary and secondary education. The lower levels, he maintained, "present closed and settled bodies of knowledge," while higher intellectual institutions "conceive of science and scholarship as dealing with ultimately inexhaustible tasks: this means that they are engaged in an unceasing process of inquiry." The relation between teacher and pupil then becomes different: "At the higher level, the teacher does not exist for the sake of the student: both teacher and student have their justification in the common pursuit of knowledge" [33, p. 243]. Seekers one and all, teachers and students were to be viewed as co-researchers. Amid much ambiguous idealism that clouded Humboldtian doctrine, here was the sustaining formulation that put the creation of new knowledge and the revision of old ideas first among the tasks of higher education.

Construction of the Nexus in University Organization

Humboldtian ideology served to open up conceptual space and especially to rationalize the intentions and actions of new disciplinarians who, especially in the decades between 1820 and 1870 in the German system, took up the cause of one new scientific field after another, pre-eminently chemistry and physics. The disciplinarians' pursuit of self-interest and related experimentation with basic unit organization led to the birth of a new generic form: the academic research group. The main tools of this new formation were neither the lecture nor the didactic classroom, nor the reading of canonical texts, but discovery-oriented activity in new teaching-research laboratories and teaching-research seminars.

A classic case and influential model of what Humboldtian thought came to mean in actual practice, as worked out by the new specialists as they sought to establish themselves and to engage in research, was the laboratory organized and directed by the chemist, Justus Liebig, in the small provincial university of Giessen beginning in 1826 and lasting for three decades [15, 12]. The laboratory started out as a training school for pharmacists similar to others of its type. But Liebig was determined to do research, to contribute new knowledge in successive waves, while teaching existing knowledge and expanding research technique. He did so in a way that gave his laboratory a competitive advantage over old and new rivals at other universities. He learned to concentrate lectures in a summer semester, leaving the entire winter for practice work in the laboratory. He set research problems for students; he invented simpler and more reliable instruments for chemical analysis, making it possible for students of varying levels of insight and skill routinely to produce elementary analyses at a much accelerated rate. Student investigations became standard, first centering on problems the director set around his own interests and capabilities and then going beyond them. Matriculants shifted from would-be pharmacists to chemists. By the 1840s, competitive advantage was fully at hand. Frederic L. Holmes commented: "Liebig's command of so large a group of advanced students to whom he could give experimental projects useful both to their training and to his interests enabled him to exploit new research openings with a swiftness that made it hard for chemists operating alone, or with only a few students, to compete with him" [15, pp. 162–163].

Other chemists who were to leave their mark — Bunsen at Heidelberg, Kolbe at Leipzig, Baeyer at Munich — and such influential new physicists as Franz Neumann at Königsberg found the research-teaching laboratory or seminar to be their primary tool [24, 27]. Instruction was

no longer based primarily on lecture courses and traditional written materials or left to self-instruction. Teaching now revolved around practical exercises in techniques of quantification, innovative design of instruments, and group review of problems and results. Such professors could pontificate about *Wissenschaft* and *Bildung* all they wanted, but in practice they were promoting the mental and material tools involved in the *labor* of science — a distinctive set of investigative techniques newly characteristic of a discipline. Students learned to follow certain rules of investigative protocol and rigorous techniques of investigation. As students were pulled into the new laboratories and seminars both as research trainees and research performers, they notably gained an intimate involvement that did not, and still does not today, obtain in the lecture hall, or in any classroom no matter how small, where the professor presents codified knowledge and students are expected to absorb the best of the past. Now, as teaching was blended with research activity, study was folded into “the unceasing process of inquiry” that Humboldt had sought to place first in the orientation of universities.

Working outward from this Germanic base, the idea and the practices of educating by means of discovery processes have spread during the last one and one-half centuries across academic systems in developed societies and in all less developed societies that seek entry to the international gold standard of science and critical scholarship. (In 1995 these latter societies stretched from Hong Kong to Brazil to South Africa). The idea of research-based teaching and learning has become deeply entrenched in academic thought, even to the point of unconscious assumption; such operational tools as the research-teaching laboratory and the inquiry-oriented seminar have become fixed in many academic structures as standard operating procedure.

But two basic trends in the twentieth century, especially during the last half-century, have changed markedly the conditions that enable the historic nexus and the organizational arrangements that best enact it. For one, the trend from elite to mass to universal higher education[31] brings enormous growth in the teaching of beginning and intermediate students who ostensibly must master codified elementary materials before they can go forward to advanced work. The problems of “undergraduate” education then weigh heavily, demanding attention and resources: “teaching-first” settings acquire a strong rationale. Second, the trend from simple to complex knowledge, captured in the concept of substantive growth [23], enormously complicates every discipline, placing research frontiers and advanced levels of training further away from rudimentary knowledge. In an often self-amplifying fashion, the research dynamic extends and intensifies knowledge. If the biological sciences (more broadly, the biomedical fields) offer the most dramatic ex-

ample of rapid change in knowledge in the last two decades, all the scientific fields, including the social sciences, and most of the humanities, notably history, exhibit unending specialization and differentiation. The facts are shattering: in mathematics, journals number more than 1,000 and review journals use a classification that includes over 4,500 subtopics arranged under 62 major areas [21]; in psychology, the American Psychological Association is structured around 45 major specialties [20], and one of these large fields (social psychology) reports that it is comprised of 17 subfields [14]; in history, the output of materials from 1960 to 1980 apparently equaled in magnitude all that was published from the time of the Greek historian Thucydides in the fourth century B.C. to the year 1960 [32].

The two primary trends of enlarged access and knowledge growth greatly increase the costs of higher education. Governments increasingly indicate that they are not prepared to pay the unit costs of mass higher education at the level of elite education. They also make clear that they are not willing to pay throughout a national system for the increasingly high costs of research and research-based teaching and learning. By state planning or unplanned adaptation, institutions overwhelmingly centered on undergraduate instruction, with lower unit costs, are differentiated from ones that are heavily research-centered. Even among the institutions designated as universities, some are fully research-invested, some partially so. Still others operate largely without a research base and give themselves over to preadvanced teaching and routine preparation for one or more professions.

Such differentiation among institutions is also increasingly supplemented by differentiation within them. Degree levels and types of degrees multiply; the teaching of first-year students and of doctoral and postdoctoral students becomes two contrasting ends of a lengthening sequence. As noted with great reluctance by German academics in the mid- and late-1980s, the opportunity to blend research activity with teaching and learning in that historic system has shifted from the preadvanced to the graduate level [16]. Inside universities a nonresearch faculty, primarily in the status of "university lecturer," has also grown up in many national systems alongside the old-line faculty of professors privileged to do research and granted appropriate conditions of time and resources [25, pp. 44–46]. In short, during the last half-century, the idea and practices of research-based teaching and learning have become more segregated. They are not in command at the present time across modern systems of higher education. They are well supported only in particular locales, in certain university sectors, and there primarily at advanced levels of training.

The American university, in providing such concentration, has stood

out with increasing prominence during the twentieth century. Other national systems have been largely "one tier" [6, pp. 49–53]. With general education completed at the secondary level, as in European systems, students enter higher education to specialize. A long first-degree program of study historically has led to professional qualification and ostensibly to mastery of disciplinary knowledge in the letters and science fields to a level similar to the American master's degree. The few students who stayed on beyond that point could then take a post as a research worker at the university or plunge directly into the research work of the doctoral dissertation. Little or no formal structure was needed for this second stage: a connection to a mentor would do. The American university, in contrast, has had two tiers throughout the twentieth century. Because the general education of students had not been completed at the secondary level, the first tier has been preoccupied with its provision. Students generally are not admitted as freshmen to a discipline but to an undergraduate college as a whole, there to face first the requirements specified for a liberal or general education. Some specialization begins with selection of a major, generally for the last two years of the four-year program, but intense specialization in most fields does not begin until after the first degree when students move to the graduate level. This second major tier of study notably involves another round of selection and national redistribution of students in which disciplinary departments and professional schools finally assume the primary role in selecting students.

The graduate school emerged in the last quarter of the nineteenth century, in what reformers then called "the vertical university," after a half-century of struggle and experimentation, in which various efforts were made to accommodate the research imperative and substantive growth within the limits of the classical four-year first degree [30, pp. 23–35; 13, pp. 1–20]. The established "college" proved to be an immovable object; disciplinary specialization became the irresistible force. The college framework was kept, but disciplinary specialization was given "the graduate school." Advanced training thereby acquired a distinctive organizational home, one that increasingly had its own full set of admission criteria, course requirements, periodic testing, and sequences of research activities.

In cross-national comparison, the American graduate level of disciplinary departments and the professional schools that are fully located at the graduate level stand out as a frame for teaching across a broader swath of knowledge than what specialized research groups can provide. The many courses and requirements of graduate programs are staffed by what we can call the advanced teaching group, an assembly of faculty in the department or professional school as a whole responsible for the

training and certification of advanced students who seek higher degrees. These basic units also usually contain multiple research groups organized by specialists. Faculty and students move back and forth between the two types of groupings. The research groups offer the mentor-apprentice relationship that continues to serve as the primary vehicle for the transmission of tacit knowledge [35, pp. 122–132; 18, pp. 232–237].

But by themselves the research groups offer little knowledge about other specialties in the broader field of study. The growing amount of tangible knowledge in each field is then provided in the mandatory and optional courses the department faculty as a whole defines as necessary for competence. The coursework may be placed first, occupying two to three years, before full entry into intense research as the basis for the dissertation. Or the coursework and the research work may run somewhat more parallel, as when students in chemistry enter a research group at the same time they enter the parent department. In either case, the department becomes a collective mentor, a guide to preparation for research. Generally, the shift from preparation *for* research to learning from involvement *in* research occurs over several stages in which students are increasingly plunged into research activity.

Thus, under modern conditions, the research-teaching-study nexus is provided *organizationally* in a systematic and massive fashion by the type of university basic unit that combines a teaching group with research groups, a hybrid framework that can provide relatively broad disciplinary knowledge (and even some work in cognate fields) with highly specific specialty knowledge. National systems other than the American are now groping toward this framework, notably in Europe [26]. The first formal British graduate school was established in 1991 at the University of Warwick. By 1994 more than twenty universities in the U.K. had established graduate schools, and about one hundred had joined a new national Graduate Council.

On the global scene during the 1990s, the organization of a systematic framework for research linked to advanced research training is a key item of basic change in universities. Officials and academics in such fast-moving societies as Hong Kong and Korea make clear that they have no intention of being left behind. They wish to do world-class research in their universities, draw on an international talent pool, and train promising students at the cutting edge of research. What they need then are organizational patterns that uphold the research-teaching-study nexus.

Those patterns now fall mainly into four combinations. In descending order of tight integration, they are: a Type I nexus, the inclusion research department that contains a broad-based teaching group and one or more

specialized research groups; a Type II nexus, the combination of department and one or more related campus research centers, a dual structure now common on the campuses of American and British universities in which academics and chosen advanced students move back and forth across a department-research center divide to be members of teaching and research groups; a Type III nexus, a combination of university department and non-university research group, a more complicated arrangement common in Germany, with its plethora of outside major research institutes (Max Planck, Fraunhofer, etc.) and even more common in France, with its broad dual structure of universities and CNRS laboratories, in which professors, full-time researchers, and students have to move across major sector boundaries (with different career structures) in order to link teaching frameworks and specialist research groups; and a Type IV nexus, a spreading pattern characteristic of teaching-first universities, the weakest case, in which research activity, only lightly present, can only weakly serve as a primary foundation for advanced teaching and study.

In their monumental work on the development of physics in Germany, Christa Jungnickel and Russell McCormmach noted that three things are needed for effective local presentation and advancement of a discipline: research activity by established scholars, advanced training of students by means of research, and a comprehensive course of study [17, p. xvii]. The Type I setting offers all these elements in one place and with the same people collectively involved. The Type II setting offers all elements but places them in different intra-university locales and with somewhat different persons engaged. The Type III setting concentrates research activity by placing it in a separately supported locale, but leaves more problematic whether students gain access to that locale and whether any course of study is included. The Type IV setting is weak on all three components, particularly in support of research activities.

Specified organizationally in the context of late twentieth-century mass higher education and high knowledge sophistication, these four types of the research-teaching-study nexus provide terms appropriate for both examination of university organization in any one country and cross-national comparison of university sectors.

Research-Based Teaching and Learning in the General Educational Structure

As noted above, modern conditions of higher education tend to move the research foundations of teaching and learning within higher education from the undergraduate to the graduate level, especially to doctoral

programs. For staff and students alike, the doctoral level is where the commandment to do research most fully takes over. And it is by concentrating on doctoral training that we learn how nineteenth-century German modes of research-based teaching and learning became supplemented by twentieth-century American arrangements to provide in great profusion strong versions of the three-way connection. But a strong case can also be made that student participation in a research environment is a highly appropriate form of teaching and learning in preadvanced programs, from the entry year onward. Regardless of its specific nature, a research project involves a process of framing questions, using reliable methods to find answers, and then weighing the relevance of the answers and the significance of the questions. Student research activity is then, at root, a scholarly process for learning how to define problems and map a line of investigation. It is also a way to induce critical thinking and to develop inquiring minds, an active mode of learning in which the instructor provides an analytical framework and some particular ways of solving problems but does not offer answers to be written down, memorized, and given back. Even when resources and setting do not permit an actual plunging of preadvanced students into projects, small or large, instructors who bring a research attitude into their teaching are likely to exhibit some features of the processes of inquiry. Good educational reasons abound why academics, when told they must only teach, resist a flight from research.

Thus it should come as no surprise that faculty in the best undergraduate-centered liberal arts colleges in the United States report they are involved in research. They view research as necessary for effective undergraduate teaching in both the short run and the long term and as essential for their personal development, standing, and identity as productive academics [7, pp. 73–85; 22]. Treating some undergraduates as research assistants, they offer a mentor-apprentice relationship. Many American university faculty members bring some undergraduates as well as graduate students directly into research activity. In the 1990s a small national movement is underway that encourages the “research collaboration” of undergraduate students and faculty [19, 34]. Professors are more than ever aware that involvement in research activity can increase the general motivation of undergraduates to learn as well as stimulate their interest in specific subjects.

The educational uses of research have also not escaped the partisans of reform in K–12 education. J. Bruner argued cogently three decades ago that schools should promote active learning through discovery and problem-solving [4, 5]. R. J. Schaefer even advocated at that time that some schools should be centers of inquiry, operating in part as “centers

for the production of knowledge about how to carry out the job" [28, pp. 1–2]. He rightly stressed that teaching cannot be an intellectual calling when it mainly consists of a routine distribution of knowledge in packaged form. If teachers operated as scholar-teachers, with action research giving them a work life more like that of university professors, they could then also serve as role models for students preparing for life-long learning. Teachers and students alike should have the opportunity to engage in inquiry and thereby become better inquirers.

During the 1980s and early 1990s numerous reform efforts in K–12 education have moved toward the idea of teaching by means of staff and student involvement in research. Reform in mathematics and science education has sought to move schoolteachers and their students toward a broad problem-solving approach, as opposed to computation [1, 11]. T. Sizer's Coalition of Essential Schools, with its emphasis on student as worker, teacher as coach, and "learning how to learn," seems substantially inquiry oriented [29]. Professional Development Schools seek to strengthen school-university collaboration and to have teachers involved in inquiry [10, p. 289]. Particularly striking have been the special programs developed for high-flying students in science that have been long in place in such elite settings as the Bronx High School of Science and Stuyvesant High School in New York, settings backed by the prestigious and spirited annual national Westinghouse Science Talent Search. Here secondary school teachers clearly engage students in research. And the specialized academic schools of New York City are not alone in heavily emphasizing inquiry. Many other schools throughout the United States in states as varied as Virginia, Illinois, and California have picked up on the general idea that young people need to be taught to do research and at some point to be actually involved in research [2]. Once the merits of a research program are appreciated, numerous secondary schools have or can develop the capacity to be substantially more research oriented.

Educational Sites as Places of Inquiry

We need to move conceptually beyond the dichotomy of research *and* teaching. Drawing a fault line between these two principal faculty activities, the incompatibility thesis portrays teaching and research as distinctively different operations that are basically opposed to each other. But if a line must be drawn, it should be drawn between research-based teaching and learning (where much blending of these three activities occurs) and teaching and learning centered on codified material and lacking an inquiring attitude. The extremes of these two forms are found within higher education in doctoral education and routine instruction of

first-year students. An informed grasp of the relationship of research to teaching and learning depends on an understanding of graduate schools and advanced programs as well as undergraduate instruction and the needs of beginning students.

A culture of inquiry has important advantages in educational sites. Elementary and secondary schools increasingly find close encounters with research to be powerful ways to stimulate student motivation and enhance learning. Forward-looking universities and colleges promote such encounters in undergraduate work, as an essential part of a liberal or general education, even as the universities embed them all the more deeply in master's and especially doctoral programs that serve as natural locales for a tight research-teaching-study nexus. From high-school diploma to the doctorate, graduates will increasingly need habits of mind necessary for informed and disciplined problem solving. For life in an inquiring society, one where information becomes knowledge and knowledge occasionally becomes wisdom, a sense of inquiry and a related research enlightenment may be the best common tools that higher education can offer its graduates.

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The Roles of Institutional Cultures and Decision Approaches in Promoting Organizational Effectiveness in Two-Year Colleges

The effectiveness of a college or university is a function of how it responds to external forces and internal pressures in fulfilling its educational mission. Most of the research on institutional effectiveness has focused on four-year institutions. Yet, two-year institutions comprise the single largest institutional sector of American higher education with over twelve hundred of these institutions serving more than five million students (Pincus & Archer, 1989). This article focuses on the organizational effectiveness of two-year colleges.

Background

Cameron (1978; 1986) identified nine dimensions of organizational effectiveness that can be used to evaluate the performance of all forms of postsecondary institutions. The nine dimensions are: student educational satisfaction, student academic development, student career development, student personal development, faculty and administrator employment satisfaction, professional development and quality of faculty, system openness and community interaction, ability to acquire resources, and organizational health. From their study of a sample of two-year colleges, Smart and Hamm (1993b) concluded that Cameron's nine dimensions of organizational effectiveness represent key management and in-

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stitutional performance indicators of two-year colleges. They also demonstrated that the organizational effectiveness of two-year colleges is a function, in part, of their mission priorities (e.g., transfer/college parallel, technical/career, adult/continuing, and other goals).

Cameron's dimensions of organizational effectiveness encompass a wide range of important variables. However, they do not include other factors that also affect institutional performance, such as decision-making approaches, institutional culture, and the nature of relations among faculty, administrators, and students (Birnbaum, 1988, 1992; Senge, 1990; Weick, 1979; Whetten, 1984). These variables become increasingly important as turbulent and unpredictable economic cycles, competitiveness, and shifting priorities for public support threaten the viability of many postsecondary institutions (Ashar & Shapiro, 1990; Cameron, 1986; Finn & Manno, 1996; "To Dance With Change," 1994). In these circumstances institutions often adopt structural patterns (e.g., centralization of functions) and management practices (e.g., autocratic decision-making processes) that frequently result in inflexible patterns of behavior, which over time may have a negative influence on institutional performance (Cameron, 1983; Cameron, Whetten, & Kim, 1987; Zammuto & Cameron, 1985). Indeed, much of the most recent literature on high performance in organizations calls for exactly the opposite kind of structural patterns and organizing processes; "postmodern" organizations, argue researchers, need less autocracy, more flexibility, and greater creativity (Handy, 1989; Senge, 1990; Tierney, forthcoming).

The research is unclear about whether certain decision-making approaches are related to enhanced institutional effectiveness (Baldrige, 1971; Chaffee, 1983; Cohen & March, 1974). Nonetheless, many organizational theorists argue that participative decision processes are associated with higher levels of organizational performance (Birnbaum, 1992; Child, 1973; Meyer, 1979; Peters, 1987; Senge, 1990; Sutton & D'Aunno, 1989). Consensual, participative decision processes seem to be more strongly associated with the organizational effectiveness of four-year colleges and universities than are centralized decision processes (Cameron & Tschirhart, 1992). The nature of administrative and faculty relations also can influence decision making and, in turn, institutional effectiveness (Cameron, 1982, 1985). Cameron (1982) found that institutions with collective bargaining agreements scored lower than non-unionized campuses on eight of the nine organizational effectiveness dimensions.

An institution's culture is thought to mediate how an institution deals with external forces and internal pressures (Chaffee & Tierney, 1988; Kuh & Whitt, 1988). Culture is formed over decades, as institutions

“learn” how to respond to challenges associated with their establishment, survival, and growth (Clark, 1970; Schein, 1985). There are many ways to conceptualize and define institutional culture. For the purpose of this article culture is the patterns of interpretations people form about the manifestations of their institutions’ values, formal rules and procedures, informal codes of behavior, rituals, tasks, jargon, and so on (Martin, 1992). In this sense, “culture is reflected in what is done, how it is done, and who is involved in doing it. It concerns decisions, actions, and communication” (Tierney, 1988, p. 127). The plural form of the word “pattern” suggests that no single interpretation or view can accurately represent the perspectives of all faculty, staff, and students, because people do not see the institution in the same way (Martin, 1992). Indeed, a college can be host to many cultures or subcultures (Van Maanen & Barley, 1985). At the same time it is possible to deduce some general themes of organizational life about which people can generally agree, such as preferred approaches to decision making (Quinn & McGrath, 1985).

How one thinks about organizational life also suggests the manner in which strategy gets enacted and defined. As Chaffee and others have noted, an organization’s culture, then, implies a particular stance toward strategy (Chaffee, 1984; 1989; Chaffee & Tierney, 1988). A cultural view of the organization suggests that strategy is a process, not a product, a means to ask appropriate questions rather than a series of answers. In effect, a cultural strategy — often called interpretive strategy — is a way for leaders to think about, look at, and define their organization. In contrast, previous uses of strategy — usually called linear — were hierarchical in nature and expected a small group of an institution’s leaders to develop an efficient mechanism that would manipulate the predictable components of the organization. The environment was seen as a series of understandable properties “out there”; an effective manager was one who was able to react to the complex set of forces in the environment. Administrators assessed goals and planned actions that achieved definable ends. Such a strategic orientation often has been seen as too rigid because it overlooks the dynamic aspects at work within the organization and in the environment.

In reaction to linear strategy, some critics utilized adaptive strategy. Rather than thinking of the organization as machinelike, adaptive strategists thought of it more as an organism that adapted to environmental trends and demands. The external environment received prominence. Whatever the environment needed was seen as the goal of the organization. Organizational values were ignored or subordinated to the demands of the environment. A leader was someone who could read the environment accurately and adapt the organization to the press of exter-

nal forces. The concern with this approach was that the overriding purpose or ethos of the organization often became lost, constituents were unsure of their tasks, and any sense of organizational glue came unhinged; long-range stability was put in jeopardy for perceived short-range needs.

In the cultural approach, people receive, process, and send messages. To be sure, goals and results are as important in the cultural approach as they are in linear strategy. The environment is also critical, as it is with the adaptive strategy. However, in the cultural approach organizational values are central. How individuals interpret the organization to themselves and to outsiders becomes the key task as they struggle to meet the challenges and demands of the marketplace. Such a strategy works from the assumption that the organization plays a role in creating its structure and its environment.

Studies of institutional effectiveness have typically employed conventional regression procedures to examine the relationships between organizational structures and processes. Regression analyses take into account only direct effects of independent variables (e.g., environmental conditions, mission priorities, institutional culture) on the dependent measure of organizational effectiveness. There is also reason to believe that the external postindustrial environments (Cameron & Tschirhart, 1992) of two-year colleges may have significant negative indirect, as well as direct, effects on organizational performance. For example, as mentioned earlier, institutions often centralize managerial functions and processes in response to external threats to their viability (Cameron, 1983; Cameron & Tschirhart, 1992; Zammuto & Cameron, 1985). To discover how the external environment and an institution's culture, mission, preferred decision-making approaches, and collective bargaining status work together to influence the performance of two-year colleges, both indirect and direct effects must be estimated.

Purpose

This study examines the relationships between institutional culture, decision-making approaches, and organizational effectiveness of two-year colleges. It differs from most of the related research on postsecondary institutional effectiveness in three respects. First, the study focuses on two-year institutions, a sector of American higher education in which such inquiries are relatively rare. Second, most studies of the culture of postsecondary institutions (e.g., Clark, 1970; Chaffee & Tierney, 1988; Kuh, Schuh, Whitt & associates, 1991; Kuh & Robinson, 1995) have employed an integration perspective (Martin, 1992); that is, people are assumed to interpret organizational arrangements and activities

pretty much the same way (i.e., cultural properties are interpreted consistently by all institutional members). In contrast, the idea of "equifinality" is that members may subscribe to similar goals, but the reasons they desire to achieve such goals and/or how they interpret the goals may vary. Accordingly, in this study we acknowledge that multiple interpretations of institutional life are not only possible but likely, and that certain events and actions (e.g., decision-making approaches) may be ambiguous even though the data-collection methods employed suggest otherwise (Martin, 1992).

Finally, the study uses causal modeling procedures to estimate the contributions of factors considered important to organizational effectiveness in two-year colleges. The advantage of causal modeling procedures over conventional regression techniques is that they take into account both direct and indirect influences of predictor variables, thus producing a more robust estimate of the total influence of variables in the model. In addition, they reveal the dynamic process by which the predictor variables exert influence by identifying salient intervening or mediating variables (Wolfle, 1985).

Methods

Sample

A two-stage process was used to select the sample. First, 30 public two-year colleges, stratified according to size, were randomly selected using the 1990 AACJC membership directory. Then, all full-time administrators and a random sample of full-time faculty members at these institutions were invited to participate in the study ($n = 1332$). Approximately twice as many faculty were selected as administrators at each college. A 54% response rate ($n = 698$) was realized. The administrator response rate (63%) was greater than that for faculty members (47%). The results are based on the responses of 639 individuals who had complete data on the variables described below.

The Causal Model

The causal model estimated for this study (Table 1) uses Cameron's nine dimensions of organizational effectiveness to produce a global measure of institutional performance. The inclusion of decision-making approaches in the model reflects their reputed importance to organizational performance (Child, 1973; Meyer, 1979; Peters, 1987; Sutton & D'Aunno, 1989). The model also assumes that the missions, cultures, and external environmental conditions of two-year colleges differ. Mission priorities and environmental conditions interact with the institu-

TABLE 1
Causal Model to be Estimated

<i>Exogenous Variables</i>	<i>Institutional Cultures</i>	<i>Decision Approaches</i>	<i>Institutional Effectiveness</i>
College size			
	Clan		
Financial health			
		Rational/Collegial	
Enrollment health			
	Adhocracy		
Transfer emphasis			Global Effectiveness
	Market		
Career emphasis			
		Autocratic/Political	
Adult emphasis			
	Bureaucratic		
Union status			

tional culture in unknown ways and shape institutional decision-making and management approaches. Taken together, all these variables are thought to influence the global organizational effectiveness of two-year colleges.

Therefore, four sets of variables are ordered in a causal sequence in the model. The first set is comprised of seven exogenous variables reflecting (1) college size in terms of head count enrollment, (2) college financial health in terms of deteriorating funding and revenue patterns, (3) college enrollment health in terms of declining student enrollments, (4) college transfer emphasis in terms of the percentage of total enrollment in college parallel programs, (5) college career emphasis in terms of the percentage of total enrollment in technical/career programs, (6) college continuing education emphasis in terms of the percentage of total enrollment in adult/continuing education programs, and (7) collective bargaining status based on whether or not the campus is unionized. These exogenous variables are included in the model to control for their demonstrated relationship to the organizational effectiveness of colleges and universities noted earlier.

The second set was comprised of measures of the four types of institutional cultures developed by Cameron and Ettington (1988) and used in previous studies of the effectiveness of two- and four-year postsecondary institutions (Cameron & Ettington, 1988; Fjortoft & Smart, 1994; Smart & Hamm, 1993a; Smart & St. John, 1996; Zammuto & Krakower, 1991). The four culture types are clan, adhocracy, bureau-

cracy, and market. *Clan cultures* are characterized by norms and values that foster affiliation, encourage member participation in decision making, and emphasize talent development as an institutional goal. Faculty and staff are motivated by trust, tradition, and their commitment to the institution. The clan's strategic orientation is to use consensus to make decisions; interpretive strategy is utilized. *Adhocracy cultures* assume that change is inevitable; individuals are motivated by the importance and ideological appeal of the tasks to be addressed. A prospector-type strategic orientation is used to acquire resources to ensure institutional vitality and viability. Adaptive and interpretive strategies are called on to make decisions. A *bureaucratic culture* seeks stability; its strategic orientation is to maintain the status quo. Formally described roles dictate the activities performed by various individuals and the nature of relations among people; individual compliance with organizational mandates is governed by rules and regulations, and linear strategy is the mode of operation. *Market cultures* are achievement oriented and emphasize planning, productivity, and efficiency in developing strategy; again, linear strategy is the modus operandi. Faculty and staff performance is assured through rewards for competence and contributions to organizational effectiveness. Appendix A explains the analytical procedures used to derive the four culture scores.

These four culture types represent ideal forms. They differ in terms of the degree to which they emphasize the importance of: (1) people or the organization, (2) stability and control or change and flexibility, and (3) means or ends. Most institutions probably reflect properties of more than one of these types. At the same time, colleges manifest different combinations of attributes that evolve into distinctive institutional cultures that "are reflected in idiosyncratic manifestations: organization-specific rituals, symbols, languages, and the like. But while specific manifestations of individual cultures may be unique, their meaning content across organizations will be similar to the extent that the underlying value systems are similar" (Quinn & Kimberly, 1984, p. 300).

The hypothesized link between organizational effectiveness and institutional cultures has been substantiated in several recent studies. For example, Cameron and Ettington (1988) and Cameron and Freeman (1991) found that four-year colleges with a dominant clan culture have higher levels of performance on internal morale performance criteria, those with a dominant adhocracy culture are more effective in promoting academic development, and those with a dominant market culture are more successful in their interactions with the external environment (e.g., acquiring resources).

The third set of variables in the model was comprised initially of how

respondents characterized the manner in which resource allocation decisions at their institution were made (Baldrige, 1971; Cohen & March, 1974; Chaffee, 1983). The six decision approaches are: (a) collegial, based on consensus, (b) rational, based on supporting data, (c) bureaucratic, based on structured administrative patterns, (d) political, based on self-interest and power, (e) organized anarchy, based on serendipity, and (f) autocratic, based on the preference of a single, powerful individual. Because these measures have unknown psychometric properties, factor analytic procedures were used to determine their construct validity. The results (Appendix B) pointed to two prevalent decision approaches. The first is *rational/collegial*, in which resource allocation decisions are the result of "group discussion and consensus," based on the use of "a standard set of procedures," and criteria reflecting "what objectively seems best for this institution overall." The second is *autocratic/political*, in which resource allocation decisions are customarily made by "one individual at this institution," in a political manner "based on the relative power of those involved" and without any "particular pattern" characterizing the criteria used.

The fourth set is a single dependent variable reflecting the global organizational effectiveness of the 30 participating two-year colleges. The organizational effectiveness scale was created by summing the mean scores for all respondents on the nine effectiveness dimensions developed by Cameron (1978; 1986). These perceptual measures of effectiveness have external validity in that they are consistently and positively correlated with indices characteristic of high performing organizations (e.g., financial health, student enrollment, ratings of academic quality) (Cameron, 1978; 1986). Table 2 provides operational definitions and reliability estimates (where appropriate) for all measures used in the study.

Analyses. Institutional culture factor scores were computed to identify a dominant culture type for each institution. This was done by classifying institutions according to their highest score across each of the four culture factors. The results indicated that 9 (30%) have a dominant bureaucratic culture, 8 (27%) represent a dominant adhocracy culture, 8 (27%) reflect a dominant clan culture, and 5 (17%) have a dominant market culture. Appendix A shows that the corresponding factor score for each dominant culture type is about a half standard deviation above the grand mean (standardized at 0) and that each dominant culture type has a substantially higher mean score on its corresponding factor. Thus, faculty and administrators perceive that their institutions have distinctive profiles consistent with the culture factor labels.

A preliminary analysis was conducted to determine if administrators and faculty members differed in the factors they perceived to influence

TABLE 2

Variable Names and Variable Definitions

Names	Definitions
<i>Exogenous Variables:</i>	
College size	Total number of full-time equivalent students.
Financial health	A two-item scale indicating the extent to which "Financial resources have become more difficult to obtain in the last year" and "Revenue for the college, adjusted for inflation, decreased over the last year." (alpha = 0.84)
Enrollment health	A single item indicating the extent to which "Full and part-time student enrollments have decreased over the last year."
Transfer emphasis	Percent of total enrollment in transfer-college parallel programs.
Career emphasis	Percent of total enrollment in technical-career programs.
Adult emphasis	Percent of total enrollment in adult-continuing education programs.
Union status	A dichotomous variable indicating whether the faculty are unionized. The variable was coded: 0 = nonunionized; 1 = unionized.
<i>Institutional Cultures (see Appendix A):</i>	
Clan culture	A factor score defined primarily by the extent to which respondents <i>agree</i> that their campuses are characterized as (1) being held together by loyalty and tradition (0.76), (2) with an emphasis on human resources (0.51), and (3) where the leader is generally considered to be a mentor, a sage, or a father or mother figure (0.36), and <i>disagree</i> with the perception that there is a strong production orientation with an emphasis on tasks and goal accomplishment (−0.74).
Adhocracy culture	A factor score defined primarily by the extent to which respondents <i>agree</i> that their campuses are characterized (1) by a commitment to innovation and development with an emphasis on being first (0.71), (2) where people are willing to stick their necks out and take risks (0.70), (3) there is an emphasis on growth and the acquisition of new resources (0.51), and (4) the leader is generally considered to be an entrepreneur, an innovator, or a risk taker (0.50), and <i>disagree</i> with the perception that there is an emphasis on permanence and stability (−0.62).
Market culture	A factor score defined primarily by the extent to which respondents <i>agree</i> that their campuses are characterized as (1) being production oriented and where people aren't very personally involved (0.70), (2) the leader is considered to be a producer, a technician, or a hard driver (0.62), and (3) emphasizing competitive actions, achievement, and measurable goals (0.43), and <i>disagree</i> with the perceptions that (a) the campus is a personal place where people seem to share a lot of themselves (−0.70) and (b) the leader is generally considered to be a coordinator, an organizer, or an administrator (−0.58).
Bureaucratic culture	A factor score defined primarily by the extent to which respondents <i>agree</i> that their campuses are characterized as (1) a very formalized and structured place where bureaucratic procedures generally govern what people do (0.89) and (2) held together by formal rules and policies with the maintenance of a smooth running institution being very important (0.71), and <i>disagree</i> with the perspective that the campus is a very personal place where people seem to share a lot of themselves (−0.65).
<i>Decision Approaches (see Appendix B):</i>	
Rational/collegial	A factor score defined primarily by the extent to which respondents agree with the following statements regarding resource-allocation decisions on their campuses: (1) "Resource-allocation is a matter for group discussion and consensus" (0.71), (2) "Resource-allocation decisions are based on what objectively seems best for the college overall" (0.54), and (3) "The college has a standard set of procedures it uses to make resource decisions" (0.53).
Autocratic/political	A factor score defined primarily by the extent to which respondents agree with the following statements regarding resource-allocation decisions on their campuses: (1) "One individual at the college makes all resource decisions of any consequence" (0.60), (2) "Resource-allocation decisions

TABLE 2 (Continued)

Names	Definitions
	are political, based on the relative power of those involved" (0.54), and (3) "No particular pattern characterizes the process by which resource-allocation decisions are made at this college" (0.39).
<i>Institutional Effectiveness:</i>	
Global effectiveness	The mean score of respondents on the nine dimensions of organizational effectiveness developed by Cameron (1978). The nine dimensions are: Student Educational Satisfaction; Student Academic Development; Student Career Development; Student Personal Development; Faculty and Administrator Employment Satisfaction; Professional Development and Quality of Faculty; System Openness and Community Interaction; Ability to Acquire Resources; and Organizational Health. ($\alpha = 0.80$)

NOTE: Numbers in parentheses for the institutional culture and decision-approach descriptions are the structure loading weights derived from the factor analyses (see Appendices A and B, respectively).

the global measure of effectiveness of two-year colleges. This was accomplished by regressing the organizational effectiveness measure on all causally antecedent variables in the model plus a set of interaction terms that were the cross-products of employment status (i.e., administrator, faculty member) and each of the predictor variables. The results showed trivial differences in the amount of variance explained, indicating that the influence of variables in the model was comparable for both administrators and faculty members.

A two-step process was used to estimate the direct and indirect effects represented in the model (Table 1). First, ordinary least squares regression procedures were used to estimate the coefficients in the seven structural equations defining the full model. Each endogenous variable was regressed on the exogenous variables and all causally antecedent endogenous variables. This produced seven sets of regression coefficients representing the direct effects of the causal factors on organizational effectiveness. Second, GEMINI (Wolfe & Ethington, 1985) was used to calculate and test the statistical significance of indirect effects implied in the model.

Results

Table 3 presents the means, standard deviations, and intercorrelations for all variables. Table 4 presents the structural equations derived from the model. The regression coefficients in Table 4 may be interpreted as the direct effects of individual predictor variables on the dependent variable while holding constant the influence of all other predictors in the equations.

The final structural equation in Table 4 indicates that the variables in the model explain 44% of the variance in organizational effectiveness of

TABLE 3
Means, Standard Deviations, and Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Effectiveness	1.00													
2. Financial health	-0.30	1.00												
3. College size	0.19	-0.19	1.00											
4. Enrollment health	-0.27	0.18	-0.20	1.00										
5. Union status	0.02	-0.01	0.01	0.10	1.00									
6. Transfer emphasis	0.03	-0.11	0.22	-0.10	0.06	1.00								
7. Career emphasis	-0.08	0.09	-0.23	0.11	-0.05	-0.57	1.00							
8. Adult emphasis	0.08	0.01	0.05	0.03	0.01	-0.22	-0.30	1.00						
9. Bureaucratic	-0.28	0.04	0.02	0.06	-0.04	-0.03	0.06	-0.03	1.00					
10. Adhocracy	0.42	-0.23	0.23	-0.22	-0.01	0.06	-0.09	0.06	0.17	1.00				
11. Market	-0.18	0.03	0.17	0.04	-0.14	0.05	0.01	-0.04	-0.08	-0.11	1.00			
12. Clan	0.06	0.01	0.03	0.01	-0.06	0.07	-0.09	0.05	0.19	-0.02	0.14	1.00		
13. Rational/collegial	0.34	-0.08	0.10	-0.09	0.04	0.04	-0.09	0.05	-0.21	0.17	-0.16	0.04	1.00	
14. Autocratic/political	-0.18	0.16	-0.05	0.10	-0.03	-0.07	0.06	0.03	0.06	-0.12	0.06	-0.06	0.03	1.00
Means	0.00	3.37	4864.39	1.50	1.55	33.78	44.75	19.57	-0.01	0.01	0.01	0.00	0.00	0.00
Standard deviations	0.50	0.90	3832.71	0.87	0.50	18.49	19.79	13.73	1.00	0.98	0.98	0.99	0.81	0.74

TABLE 4
Structural Equations: Standardized Regression Coefficients

Independent Variables	Dependent Variables (Standardized Direct Effects)						
	8	9	10	11	12	13	14
<i>Exogenous Variables:</i>							
1. College size	0.01	0.16***	0.19***	0.05	0.09*	0.00	0.08**
2. Financial health	0.02	-0.18***	-0.01	0.03	-0.02	0.13**	-0.17***
3. Enrollment health	0.02	-0.16***	0.10*	0.06	0.00	0.05	-0.11***
4. Transfer emphasis	0.07	-0.01	0.05	0.00	-0.02	-0.01	-0.02
5. Career emphasis	-0.04	-0.01	0.05	0.05	-0.04	0.02	0.05
6. Adult emphasis	0.05	0.05	-0.03	-0.01	-0.01	0.04	0.05
7. Union status	-0.07	0.02	-0.15***	-0.04	0.01	-0.02	-0.01
<i>Institutional Cultures:</i>							
8. Clan					0.11**	-0.09*	0.15***
9. Adhocracy					0.17***	-0.08	0.35***
10. Market					-0.19***	0.08	-0.17***
11. Bureaucratic					-0.28***	0.09*	-0.34***
<i>Decision Approaches:</i>							
12. Rational/collegial							0.15***
13. Autocratic/political							-0.06*
<i>Dependent Variable:</i>							
14. Institutional effectiveness							
<i>R</i> ²	0.01	0.12***	0.06***	0.01	0.14***	0.06***	0.44***

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

the 30 two-year colleges. We are unable to contrast this percent with earlier research findings because they have customarily employed analysis of variance procedures and have not reported an equivalent statistic (i.e., percent of variance explained among groups). Nonetheless, it is unusual to account for such a large amount of the variance in a dependent variable as complex as organizational effectiveness. This suggests that the collective influence of the independent variables in the model are powerful predictors of the organizational effectiveness of two-year colleges.

Table 5 presents a summary of the direct, indirect, and total effects of all variables in the model on the global measure of organizational effectiveness for the combined sample of administrators and faculty members. These are standardized coefficients and may be used to interpret the relative influences of variables in the causal model.

The results indicate that organizational effectiveness of two-year colleges is a function of the interaction among the external environment, institutional culture, and preferred decision-making approach. Two measures of the external environment (financial health, enrollment health), all four culture types, and both decision approaches (rational/collegial, autocratic/political) have significant total effects on organizational ef-

TABLE 5

Standardized Direct, Indirect, and Total Effects on Organizational Effectiveness

	Standardized Effect Sizes (Beta Weights)		
	Direct	Indirect	Total
<i>Exogenous Variables:</i>			
1. College size	0.08**	0.05	0.13**
2. Financial health	-0.17**	-0.08***	-0.25***
3. Enrollment health	-0.11***	-0.08***	-0.19***
4. Transfer emphasis	-0.02	0.00	-0.02
5. Career emphasis	0.05	-0.04	0.01
6. Adult emphasis	0.05	0.03	0.08
7. Union status	-0.01	0.02	0.01
<i>Institutional Cultures:</i>			
8. Clan culture	0.15***	0.06***	0.21***
9. Adhocracy culture	0.35***	0.04***	0.39***
10. Market culture	-0.17***	-0.01	-0.18***
11. Bureaucratic culture	-0.34***	-0.05***	-0.39***
<i>Decision Approaches:</i>			
12. Rational/collegial	0.15***		0.15***
13. Autocratic/political	-0.06*		-0.06*

* = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$

fectiveness (Table 5). Furthermore, several predictor variables have significant indirect effects that are consistent with the effects discovered by other researchers (Cameron, 1981; Cameron & Tschirhart, 1992; Zam-muto & Cameron, 1985). The results are presented according to the three sets of predictor variables in the causal model shown in Table 1.

Preexisting conditions (Exogenous Variables). The organizational effectiveness of two-year colleges is negatively affected by deteriorating financial conditions and enrollment declines, for both these variables have significant negative direct, indirect, and total effects on organizational effectiveness. Approximately one-third of the total effect of financial health and enrollment health is exerted indirectly (see Table 5). Understanding of the primary mediating variables that carry the significant, negative indirect influences for financial health and enrollment health may be seen from inspection of Table 4. For example, both of these conditions have significant, negative effects on the presence of an adhocracy culture (see results for equation number 9 in Table 4). In addition, financial health has a positive contribution to the use of autocratic/political decision approaches (see results for equation number 13), and enrollment health has a positive influence on the presence of a market culture (see equation number 10).

Institutional size has a significant positive direct ($p < 0.05$) and total

($p < 0.01$) influence on effectiveness (see Table 5); that is, larger two-year colleges are perceived by both administrators and faculty members to be more effective than smaller institutions. Neither mission emphasis (transfer, career, adult learning) nor collective bargaining status are related to organizational effectiveness when controlling for the influence of other variables in the model.

Culture types. All four institutional culture factors have significant direct and indirect influences on effectiveness. In fact, the total effects column in Table 5 shows that the two most powerful influences on the organizational effectiveness of two-year colleges are culture measures (i.e., adhocracy and bureaucratic). Adhocracy (total effect = 0.39) and clan (total effect = 0.21) cultures are positively associated with effectiveness, whereas bureaucratic (total effect = -0.39) and market (total effect = -0.18) cultures are negatively related. Moreover, the significant negative indirect effects of external conditions (i.e., financial and enrollment health) on organizational effectiveness are minimized by the presence of a strong adhocracy culture (see the equation for variable number 9, adhocracy, in Table 4). The significant negative indirect effect of enrollment health is exacerbated in institutions with a strong market culture (see the equation for variable number 10, market, in Table 4).

Decision approaches. Both the rational/collegial and autocratic/political decision approaches have significant direct and total effects on organizational effectiveness; the former is positive (0.15; $p < 0.001$), the latter is negative (-0.06; $p < 0.05$). The influence of the rational/collegial variable in the model, however, goes well beyond its significant direct influence on effectiveness, because it also serves as the primary mediating variable for the positive indirect effects of clan and adhocracy culture types and the negative indirect effects of market and bureaucratic cultures. That is, clan and adhocracy cultures appear to foster the use of a rational/collegial decision approach, which has a significant positive influence on effectiveness (see *positive* effects in the equation for variable 12, rational/collegial, in Table 4). Conversely, the negative effects in the equation for variable 12 in Table 4, rational/collegial, indicate that bureaucratic and market cultures obviate rational/collegial approaches to decision making. The negative indirect influence of the financial health measure is exacerbated at institutions using an autocratic/political decision approach (see *positive* effect in the equation for variable 13 in Table 4).

Discussion

The findings from this study confirm and extend previous research on the influence of the external environment and institutional cultures on

organizational effectiveness. The results also lend some insight into the dynamic manner by which potentially debilitating factors in the external environment indirectly influence organizational effectiveness. For example, the key mediating variable for both enrollment and financial health is an adhocracy culture. It seems that colleges with a strong adhocracy culture are able to minimize the impact of difficult enrollment and financial conditions, perhaps by enabling the institution to adapt to changing external conditions and internal pressures. These institutions also are considered by their faculty and administrators to be more effective overall. Consistent with other research (Cameron & Freeman, 1991; Cameron & Tschirhart, 1992; Fjortoft & Smart, 1994; Smart & Hamm, 1993a), declining enrollment and financial conditions and bureaucratic and market cultures are negatively related to effectiveness.

These findings suggest that the relative influence of these measures may have been previously underestimated as they now appear to have important indirect, as well as direct, influences on the organizational performance of two-year colleges. This is especially the case in terms of financial and enrollment health where approximately a third of their total effects on organizational performance are indirect in nature (see Table 5). The potentially debilitating influences of declining enrollment and financial conditions on organizational performance seem to be muted in part by leadership styles and decision approaches that are congruent with adhocracy and clan cultures. Leaders in institutions with an adhocracy culture prefer to be proactive with regard to trends and forces in the external environment through external positioning, long-term time frames, and achievement-oriented activities. Turning inward and focusing on internal management issues is inconsistent with their prospector, externally oriented style of administration and leadership, which is associated with enhanced organizational performance. Therefore, it seems advisable that two-year college administrators adopt a leadership style and advocate for managerial processes that will develop and sustain a culture that permits some measure of entrepreneurship in its interactions with the external environment.

According to Schein, "The only thing of real importance that leaders do is to create and manage culture" (1985, p. 2). In fact, the most common mistake made by new presidents is acting in ways that are counter to their institution's culture (Birnbaum, 1992). The results of this study confirm that becoming competent in discovering and managing culture is a critical skill for institutional leaders (Dill, 1982; Kuh & Whitt, 1988; Lundberg, 1990). "The symbolic role of leadership," writes Tierney, "is to communicate and interpret the values and goals of the community" (1992, p. 17). Thus, it appears prudent that community college leaders

employ interpretive strategies aided by an adaptive view of the environment (Bensimon, 1989; Bensimon, Neumann, A., & Birnbaum, 1989; Neumann, 1989).

Most scholars who use cultural perspectives in their work are hesitant to endorse certain forms of cultures as "better" than others (Martin, 1992; Kuh & Whitt, 1988; Van Maanen & Barley, 1985). They argue that although cultures have different properties, they do not differ in relative worth. However, the results of this study indicate that institutions with adhocracy or clan cultures are advantaged when dealing with potentially debilitating conditions in the external environment (Cameron & Ettington, 1988; Cameron & Freeman, 1991; Fjortoft & Smart, 1994). Almost half of the institutions in this study have dominant cultures classified as bureaucratic or market, types that are negatively associated with institutional effectiveness. Bureaucratic cultures, for example, are generally considered to be among the most difficult to respond purposefully and adroitly to external forces and internal pressures (Birnbaum, 1988).

Leadership styles, bonding mechanisms, and strategic emphases vary by culture types. For example, in clans the dominant leadership style is that of a mentor or facilitator, the bonding among organizational members is based on loyalty and tradition, and the strategic emphases focus on human resources and cohesion. The attributes of a clan culture may take longer to cultivate, especially if the dominant culture type is bureaucratic. Alternatively, in adhocracies the prevalent leadership style is that of an entrepreneur or innovator, the bonding among organizational members is based on innovation and development, and strategic emphases focus on growth and the acquisition of additional resources. Such institutions emphasize concern for the welfare of employees and the maintenance of flexibility, individuality, and spontaneity (Cameron & Ettington, 1988). In general, organizations that exhibit a clan culture are places where people seem to share a lot of themselves, while those that exhibit an adhocracy culture are regarded as being very dynamic and entrepreneurial places in which people are willing to stick their necks out and take risks. Both of these forms of institutional culture are superior to market and bureaucratic cultures: the former is characterized by a production orientation and an emphasis on competitive actions and achievement, where leaders are regarded as hard drivers or producers and in which the bonding among organizational members is based on task and goal accomplishment, whereas the latter is characterized by structured and formalized rules and regulations and an emphasis on permanence and stability, where leaders are regarded as organizers or coordinators, and the bonding among organizational members is based on adherence to formal procedures.

Leaders in clans and adhocracies utilize interpretive strategies which assume that the organization and environment are not preexisting and determined realities with a singular interpretation. Instead, leaders make sense of the organization and the environment to constituents. Clan leaders call more on the use of historical ideologies, whereas adhocracies interpret the environment. In this sense, adhocracies are more adaptive to the needs of the marketplace; nonetheless, they still focus on interpretation. Bureaucratic and market cultures, however, subscribe to a singular notion of organizational reality and assume that structural responses are adequate.

Administrators at two-year colleges with strong bureaucratic and market cultures should consider ways to "bend" their college's culture in order to make the institution more responsive and adaptable to external forces and internal pressures, thereby insuring institutional survival. At some institutions this may require that administrators approach their work in Janusian fashion, centralizing some functions while at other times encouraging participative decision-making practices in ways that might become compatible with their institution's culture. Recall that the rational/collegial decision approach has a significant *positive* influence on organizational performance and is the primary mediating variable for the significant indirect effects of the four culture types; the autocratic/political approach has a significant *negative* influence on organizational performance and mediates the significant indirect effect of the financial health external threat.

These two decision approaches represent sharply contrasting ways of making resource allocation decisions. The differences in the approaches can be characterized by three key features: (a) degree of membership participation, (b) institutional focus of decision criteria, and (c) procedural orderliness. Rational/collegial processes are characterized by higher levels of membership participation in decision making through an emphasis on group discussion and consensus, a stronger focus on institutional priorities when making resource allocation decisions, and more consistency achieved through the use of a standard set of procedures to reach decisions. At the other extreme, autocratic/political processes manifest less membership participation in that one individual tends to make all important decisions, special interest groups influence decisions as much as institutional priorities, and there is ambiguity in how decisions are reached. The findings of this study clearly suggest that efforts to enhance the organizational performance of two-year colleges would be advised to incorporate the approach of the rational/collegial process in critical resource allocation decisions.

Finally, an institutional strategy must be developed that will help forge an emergent institutional culture with properties of an adhocracy

and clan so that the external environment becomes "more munificent and supportive of the institution's activities" (Cameron, 1983, p. 375) and internal processes encourage active participation. Such a strategy will likely reflect a combination of what Miles and Cameron (1982) called domain defense, offense, and creation. Domain defense activities (e.g., activate support groups, form lobbying organizations, develop consortia) are intended to generate support from important external constituencies, to buffer the institution from environmental threats, to buy time to clarify those threats, and to formulate domain offense strategies. The objectives of domain offense activities (e.g., expanding current markets or student groups, aggressive recruiting, active public relations programs) are to enable institutions to expand activities they already perform, to broaden institutional appeal, and to increase slack resources. Domain creation activities (e.g., establishing new programs in high demand areas, capital investments, new public service ventures) are intended to create "new opportunities for institutional success while minimizing the risk of being overspecialized in areas where resources are decreasing" (Cameron, 1983, p. 375).

It is not possible to describe a culture-bending strategy that will work in every two-year college. Administrators and faculty are encouraged to consult Schein (1985), Lewin (1958), Lundberg (1985), Goodstein and Burke (1991), and others as they seek ways to infuse the complementary values of adhocracy and clans in their own institutional cultures and decision-making approaches. For example, Schein (1985, pp. 270–296) describes twelve mechanisms that have been employed successfully to modify cultures depending on the institution's stage of organizational development. And Lundberg (1985) provides a conceptual framework to understand the process of cultural change that is grounded in organization learning theory and incorporates internal and external contingencies that facilitate and hinder efforts to intervene in the culture change cycle.

Limitations

This study has several limitations that must be taken into account when interpreting the results. First, although this is a multiple institution study, 30 randomly selected institutions is but a small fraction of the more than 1,200 two-year colleges in the United States. Thus, caution must be exerted when attempting to generalize from this sample to other two-year institutions.

The selection of external environmental measures (financial and enrollment health) may have affected the results in unknown ways. The use of other indices (e.g., changing local employment conditions or tax base) might have influenced perceptions of institutional effectiveness

differently. In addition, these measures may not necessarily reflect factors that are independent of the institution as portrayed in the causal model. That is, it is possible that a college creates enrollment problems by treating students poorly or through its inability to offer high-demand programs.

Some of the measures of the global organizational effectiveness index may be contaminated by perceived environmental threats. For example, because enrollment has declined recently, faculty and staff may assume students are less satisfied and that the institution is doing other things wrong as well.

Interpreting the relationships between decision approaches and effectiveness is complicated by the possibility that respondents' perceptions of their institution's approach to resource allocation decisions affect their views of organizational effectiveness. For example, because rational and collegial approaches to decision making as described in the survey instrument are more congruent with academic values than autocratic and political approaches, faculty may perceive institutions that use rational or collegial approaches to be more effective. We are not able in this study to separate and parse causally respondents' values about good decision making and their perceptions about institutional effectiveness.

In addition, the measures used to determine institutional culture profiles are not sensitive to many cultural properties that may have a bearing on institutional effectiveness (e.g., trust, history of managing well threats to institutional survival). Also, it is not clear whether preferred approaches to decision making shape the institutions' culture profiles, or whether the distinctive institutional culture essentially dictates which approaches could be used. That is, what comes first: A culture that supports rational decision-making approaches? Or is rational participative decision making a fundamental property of clan and adhocracy cultures? This is a nontrivial distinction. It may be possible for administrators to modify decision-making processes through technical adjustments. However, when implemented, the new processes may be seen by faculty and others as countercultural and subsequently become counterproductive. As we have suggested, if culture shapes decision making, then institutional leaders must focus more on interpretive strategies (Chaffee, 1985) when explaining the institution's relationship to its external environment and symbols and meaning making (Dill, 1982) in internal communications.

Furthermore, the work is a snapshot of an organization at a particular point in time. One potential for further investigation pertains to how cultures change over the organizational life cycle. Perhaps new organizations need cultures that are bureaucratic, for example, in order to imple-

ment basic structural processes. At what point in its history is an organization capable of becoming clan-like? Further research is needed to answer these and related questions.

Conclusion

This study confirms and extends earlier research on the relative influence of factors in the external environment, institutional culture, and internal decision and managerial approaches on the organizational effectiveness of postsecondary institutions. The findings of this study suggest that the influences of these factors may have been underestimated in the past by not taking into account indirect influences on effectiveness. In addition to providing more accurate estimates of the effects of these forces, the results also suggest how the negative influences of declining enrollments and financial health may be partially muted through attention to institutional cultures and decision approaches. These two components of the overall managerial strategy of two-year colleges appear to be powerful mechanisms in efforts to enhance organizational performance in an era where the credibility of colleges and universities is being challenged and their environments are less munificent.

APPENDIX A

Institutional Culture Measures: Factor Analytic Procedures and Results

Factor Procedures: The survey instrument contained the original 16 items used by Cameron and Ettington (1988) to measure four distinct but related types of campus cultures. Theoretically, there are 4 items intended to measure each of the four campus cultures. Factor analytic procedures using an oblique rotation were used to assess the validity of the proposed factor structure and, subsequently, to obtain factor scores used in the path analysis. Four factors were derived, given the underlying four-dimensional conceptual framework of the survey instrument developed by Cameron and Ettington (1988).

Factor Results: The results of the analysis produced the factor loadings presented in Table A. The table presents the pattern and structure weights used to interpret the substantive meaning of the four derived factors. The *pattern weights* are similar to regression coefficients, whereas the *structure coefficients* represent the correlations of the variables with the factor scores. Overall, the four-factor solution accounts for 57.6% of the variance among the 16 variables. In addition, 12 of the 16 items load most highly on the factor to which they are theoretically related. None of the 4 items that do not conform to theoretical expectations (items 1, 7, 12, and 15 in Table A) load in a positive manner on any other factor; rather, they tend to have a strong negative loading on another factor and a weak positive loading on the factor to which they are theoretically related.

TABLE A:

Institutional Culture Factor Results: Pattern and Structure Weights

Institutional Culture Items	Factor Number			
	I	II	III	IV
<i>Institutional Characteristics Items:</i>				
1. This is a personal place . It is like an extended family. People seem to share a lot of themselves. (Clan item)	-0.55 (-0.65)	0.04 (0.09)	-0.62 (-0.70)	0.08 (0.33)
2. This is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks. (Adhocracy item)	-0.13 (-0.26)	0.67 (0.70)	0.07 (0.08)	0.12 (0.17)
3. This is a very formalized and structured place. Bureaucratic procedures generally govern what people do. (Bureaucracy item)	0.87 (0.89)	-0.15 (-0.29)	0.05 (0.14)	0.05 (-0.17)
4. This is a production-oriented place. A major concern is with getting the job done. People aren't very personally involved. (Market item)	-0.20 (0.04)	-0.44 (-0.36)	0.70 (0.70)	-0.29 (-0.39)
<i>Institutional Leader Items:</i>				
5. Our leader is generally considered to be a mentor , a sage , or a father or mother figure . (Clan item)	-0.09 (-0.17)	-0.07 (-0.05)	-0.05 (-0.13)	0.34 (0.36)
6. Our leader is generally considered to be an entrepreneur , an innovator , or a risk taker . (Adhocracy item)	-0.06 (-0.15)	0.47 (0.50)	0.23 (0.23)	0.18 (0.17)
7. Our leader is generally considered to be a coordinator , an organizer , or an administrator . (Bureaucracy item)	0.04 (0.09)	-0.27 (-0.34)	-0.63 (-0.58)	-0.35 (-0.25)
8. Our leader is generally considered to be a producer , a technician , or a hard driver . (Market item)	0.06 (0.15)	-0.03 (0.01)	0.60 (0.62)	-0.04 (-0.17)
<i>Institutional "Glue" Items:</i>				
9. The glue that holds this college together is loyalty and tradition . Commitment to this college runs high. (Clan item)	-0.35 (-0.47)	-0.21 (-0.12)	0.01 (-0.18)	0.68 (0.76)
10. The glue that holds this college together is commitment to innovation and development . There is an emphasis on being first. (Adhocracy item)	-0.07 (-0.20)	0.70 (0.71)	-0.05 (0.00)	-0.02 (0.03)
11. The glue that holds this college together is formal rules and policies . Maintaining a smooth-running institution is important here. (Bureaucracy item)	0.67 (0.71)	-0.25 (-0.38)	-0.07 (-0.01)	-0.03 (-0.18)
12. The glue that holds this college together is the emphasis on tasks and accomplishment . A production orientation is commonly shared. (Market item)	-0.24 (-0.01)	-0.16 (-0.13)	0.12 (0.22)	-0.77 (-0.74)
<i>Institutional Emphases Items:</i>				
13. This college emphasizes human resources . High cohesion and morale are important. (Clan item)	-0.33 (-0.46)	-0.00 (0.04)	-0.32 (-0.43)	0.37 (0.51)
14. This college emphasizes growth and acquiring new resources . Readiness to meet new challenges is important. (Adhocracy item)	0.06 (0.05)	0.54 (0.51)	-0.05 (0.07)	-0.36 (-0.34)
15. This college emphasizes permanence and stability . Efficient, smooth operations are important. (Bureaucracy item)	0.19 (0.27)	-0.59 (-0.62)	0.04 (0.00)	0.12 (0.05)

TABLE A: (Continued)

Institutional Culture Items	Factor Number			
	I	II	III	IV
16. This college emphasizes competitive actions and achievement . Measurable goals are important. (Market item)	0.04 (0.11)	0.09 (0.11)	0.39 (0.43)	-0.16 (-0.24)

NOTES: *Factor Titles:* Factor I: Bureaucratic Culture; Factor II: Adhocracy Culture; Factor III: Market Culture; Factor IV: Clan Culture.

Emphases (highlighted words) in the items are in the original instrument.

Structure coefficients are given in parentheses. Those highlighted were used to define the factors.

The *first factor* represents the *bureaucratic culture* and is defined primarily in a positive sense by 2 items associated with the bureaucratic scale (no. 3 and no. 11), and in a negative sense by a single item (no. 1) associated with the clan culture. The 2 items that were assumed to be measures of the bureaucratic culture but did not load strongly on the first factor (no. 7 and no. 15), load more highly with negative weights on other factors and have weak positive loadings on this factor. The *second factor* is defined primarily by the strong positive loadings of the 4 items related theoretically to the *adhocracy culture* (no. 2, no. 6, no. 10, no. 14) plus the negative loading of 1 item (no. 7) theoretically associated with the bureaucratic culture. The *third factor* is defined primarily by the positive loadings of 3 of the 4 items theoretically related to the *market culture* (no. 4, no. 8, no. 16) and the negative loadings of 2 items theoretically associated with clan (no. 1) and bureaucratic (no. 7) cultures. The *fourth factor* is defined primarily by the positive loadings of 3 of the 4 items theoretically related to the *clan culture* (no. 5, no. 9, no. 13) and the negative loading of 1 item (no. 12) theoretically associated with the market culture.

"Dominant" Culture Type: The four factor scores above are used throughout the article to reflect the degree to which individuals perceive their colleges as manifesting the four institutional cultures developed by Cameron and Ettington (1988). All prior studies have classified institutions by their "dominant" culture type; that is, an institution is classified as having a dominant clan culture if the institution's score on the clan scale, regardless of the magnitude of the difference, is higher than its score on the three remaining culture scales.

We were interested in determining what the *dominant culture type* would be for each of the 30 institutions in this study, given this tradition in prior research. This was done by classifying institutions according to their highest score across each of the four culture factors. The results indicate that 9 (30%) have a dominant bureaucratic culture, 8 (27%) represent a dominant adhocracy culture, 8 (27%) reflect a dominant clan culture, and 5 (17%) have a dominant market culture.

The following is the mean score on all four culture scales for colleges classified by their dominant culture type.

Dominant Culture Type	Means on Four Culture Factor Scores			
	Bureaucratic	Adhocracy	Market	Clan
Bureaucratic (<i>n</i> = 9)	+0.43	-0.35	-0.17	-0.01
Adhocracy (<i>n</i> = 8)	-0.04	+0.53	-0.06	-0.06
Market (<i>n</i> = 5)	-0.03	-0.28	+0.52	-0.07
Clan (<i>n</i> = 8)	-0.21	-0.28	-0.12	+0.39

Inspection of the above indicates that the mean for each dominant culture type is about a half standard deviation above the grand mean (standardized at 0) and that each dominant culture type has a substantially higher mean score on its corresponding factor: for example, the mean for colleges with a dominant market culture on the market culture factor is 0.52. Thus, faculty and administrators perceive that their institutions have "unique profiles" consistent with the dominant culture type labels.

APPENDIX B

Decision-Approach Measures: Factor Analytic Procedures and Results

Factor Procedures: The survey instrument included 6 items to assess the nature by which resource-allocation decisions were made on the 30 campuses. The dimensionality of the 6 items shown in Table B was explored through the use of factor analytic procedures with oblique rotation.

TABLE B:
Decision-Approach Factor Results: Pattern and Structure Weights

Decision-Approach Variables	Factor Number	
	I	II
1. Resource allocation is a matter for group discussion and consensus	0.71 (0.71)	-0.11 (-0.17)
2. Resource-allocation decisions are based on what objectively seems best for this college	0.55 (0.54)	0.07 (0.02)
3. The college has a standard set of procedures it uses to make resource decisions	0.54 (0.53)	0.01 (-0.04)
4. Resource allocation-decisions are political, based on the relative power of those involved	0.11 (0.06)	0.61 (0.60)
5. No particular pattern characterizes the process by which resource-allocation decisions are made at this college	-0.08 (-0.13)	0.54 (0.54)
6. One individual at this college makes all resource allocations of any consequence	-0.01 (-0.05)	0.38 (0.39)

Note: Structure coefficients are given in parentheses.

Factor Results: The results of the analysis yielded two factors with eigenvalues of 1.0 or greater. Overall, the two-factor solution accounts for 54.2% of the variance among the six decision-approach variables. Table B reports the pattern and structure weights used to interpret the substantive meaning of the two factors obtained from the analysis. The first factor is defined primarily by the first 3 items and was given the label of "rational/collegial" decision approach; the second factor is defined primarily by the last 3 items and was given the title of "autocratic/political" decision approach.

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The Managerial Roles of Chief Academic Officers

Numerous books have been written on leadership, management, and the application of various management techniques to improve academe's future in the face of difficult challenges. Many of these books have been directed at chief academic officers (CAOs) with hopes of improving "the effective management and efficient operation of higher education" [20, p. ix]. On many campuses, the CAO has as great — or even greater — an effect on the campus than does the president [5, p. 113].

However, without some appreciation of what CAOs actually do and why they organize their lives the way they do, efforts to improve leadership and managerial effectiveness are unlikely to be successful. Efforts to improve managerial performance fail frequently because these efforts are unrelated to "real" organizations and the conduct of managerial life within them. Because academic management is an ambiguous and highly intuitive process, a better understanding of managerial behavior is critical to improved management [13, pp. 70, 92].

Although colleges and universities are central to American society, the study of their management is relatively neglected [22, p. x]. Perhaps, if the managerial nature of the CAO's job were better understood, the high level of dissatisfaction [17] and the frequent turnover among CAOs [10, p. 64] could be reduced. Besides the personal anguish that frequent job changes create, excessive turnover is disruptive to the organization and an inefficient use of scarce organizational resources.

The skills and credentials search committees ask for may not be the expertise and qualities candidates need to be effective CAOs. The re-

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quested qualifications are often attributes that those who are setting the expected qualifications think are required. These compilations are seldom based upon a thorough knowledge of the managerial nature of the CAO's job. The normative career path from faculty member to CAO (faculty, department chair, dean, CAO) [32] does not necessarily groom successful CAOs. Because the behavior required of a manager varies with the position's level in the organizational hierarchy and the nature of the supervised functions, the managerial behavior that is demanded of a successful department head is apt to be different from that of an effective CAO.

Like most academic managers, CAOs receive little formal managerial preparation. They "learn the ropes" on their own [39]. The way in which CAOs work and the specific things they choose to do can have a profound impact on their organizations. Newly appointed CAOs who function managerially as though they were still in a previous deanship or who see the CAO's job as more presidential than vice presidential may be unknowingly mismatched with the position's managerial nature. This misunderstanding about the managerial nature of the CAO's job can result in poor managerial performance, unnecessary turnover, and wasted institutional resources.

The more the candidates and search committees know about the managerial nature of the CAO's position, the better the possible fit between the candidates and the behavior needed to perform successfully in the job. The more CAOs understand about their jobs, the more sensitive they can be to their organization's needs. The result is better managerial performance [31, p. 175] and improved institutional effectiveness [22, p. 144].

Using Mintzberg's framework, Dill [13] concluded that the nature of academic management was similar to that of corporate managerial work. Seedorf and Gmelch [44, p. 9] show that "there is similarity between the administrative work of the department chair and that of the [corporate] executive." Earlier Blau [7, pp. 269–270] recognized that the same fundamental forces that influenced the development and administration of other organizations were present in academic organizations. Although Mintzberg's typology has been applied successfully to college and university managers, the number of studies is limited. Early studies utilized qualitative methods to focus on small samples of community college managers [7, 16, 18, 49] or midlevel university deans [9, 2]. Other studies involved college presidents [12], chief student affairs officers [21], library directors [28, 34, 38, 41], and computer information services directors [11]. Research on CAOs' managerial roles, utilizing Mintzberg's [29, 30] typology is nonexistent.

The current study, using Mintzberg's [29, 30] typologies, identifies the managerial roles that CAOs emphasize. The relationship between organizational and personal characteristics and the managerial role groups CAOs emphasize are examined. Identifying the managerial roles required of CAOs may prove helpful in the selection, development, and retention of CAOs.

Managerial Roles

Many articles prescribe what managers should do; however, because managers are essentially reactive, little is written about what managers actually do. Of the behavioral research on managers, Mintzberg's [29] taxonomy is dynamic and among the best known [3, pp. 33–34, 398]. Mintzberg's integrative efforts to understand what managers actually do and the subsequent behavioral research have "provided substantial insight into the process of managerial work" [14, pp. 394–395]. Concluding there was considerable similarity in the behavior of all managers in all types of organizations, Mintzberg developed a typology that offers a comprehensive and insightful framework for examining any manager's job.

Central to this framework is role theory [42, 45] as the "conceptual vehicle for understanding and predicting behavior in organizations" [12, p. 665]. When there are uncertainties and conflicts over the roles to be performed, both the individual and the organization suffer [3, p. 277]. Role conflict and ambiguity are detrimental to a manager's performance and satisfaction, because they produce job-related tensions and dissatisfaction in individuals. Low productivity, poor quality work, excessive turnover, and difficult employee relations are organizational symptoms of role conflict or ambiguity.

Defining roles as a set of behaviors belonging to particular managers because of their organizational positions, Mintzberg [31, pp. 54–99] identified ten managerial roles that all managers perform: figurehead, leader, liaison, monitor, disseminator, spokesperson, entrepreneur, disturbance handler, resource allocator, and negotiator. Individuals "may affect how a role is performed, but not that it is performed." Thus managers "play roles that are predetermined, although individuals may interpret them in different ways" [31, p. 54].

The performance of these managerial roles by individual managers is influenced by four variables: (1) the environment (characteristics of the industry and the organization), (2) the job (its level and the function supervised), (3) the person (the manager's characteristics), (4) the situation (a job's temporal features). Thus, all managers perform all roles but

with different emphases, and the roles they emphasize are influenced by these four variables [31, p. 102].

Aside from the effect of hierarchical level and functional area on a manager's roles [1, 11, 15, 27, 35, 36, 37], there is little research on the influence of other organizational factors on the roles managers emphasize. The influence of a university's age, affluence, size, complexity, sponsorship, the presence of faculty collective bargaining, or the CAO's span of control on the managerial roles CAOs emphasize is not known. Although theory suggests that these important organizational variables are potential influences on the nature and scope of the CAO's work, their influence on CAOs' managerial behavior is not documented.

Furthermore, the research on the significance of personal factors on a manager's role performance is inconclusive. The effects of age, gender, years in the position, years with the organization, and years of managerial experience on the roles that CAOs and other managers emphasize are not clear.

The Instrument

The research on managerial roles has produced only a limited number of questionnaires. Within higher education, Judson's [21, pp. 21–22, 27–34] instrument has demonstrated internal validity and reliability (0.80). The instrument focuses on the manager's overall perception of the job and on what managerial roles the job requires rather than on what managerial roles are personally believed to be important. For this study, the wording of Judson's instrument was modified to make it appropriate for CAOs. The questionnaire used in this study had a reliability of 0.83.

The Population

Crucial to any understanding of the CAO's job and managerial roles is an examination of the influence of organizational factors on managerial roles. Because research on managerial behavior needs to control "for variance between types of institutions" [13, p. 93], this study is limited to Comprehensive Colleges and Universities I institutions [8, pp. 19–25]. These 424 institutions are among the most numerous of the four-year schools and enroll a large percentage of the college-going population.

In examining the population, it was learned that four schools had undergone significant changes and no longer met the criteria. Further research revealed that the CAO's position at 14 of the remaining institu-

tions was vacant. Given the relatively small number of institutions with functioning CAOs (406) the entire population was studied. Of the 354 questionnaires returned, 349 were usable for an 86% return.

Institutional Characteristics

When examining CAOs' managerial roles, it is important to have an understanding of the organizations in which they work (see Table 1). The 239 public and 110 private universities in this study are well established. A mark of their complexity and size is the total number of undergraduate and graduate degree programs they offer and the total number of full- and part-time faculty they employ. A measure of the resources available to the organization is the level of institutional affluence (total revenues divided by total student FTE).

With the exception of the CAO's span of control, there are significant organizational differences between private and public universities (see Table 1). Private institutions are older, more affluent, less complex (fewer degree programs), have smaller enrollments, have fewer faculty, and are less likely to have faculty collective bargaining than public institutions.

TABLE 1
Institutional Characteristics: *T*-Test Comparisons

Characteristics	Public <i>n</i> = 239	Private <i>n</i> = 110	All <i>N</i> = 349
Collective bargaining			
Percent	43.93	10.00	33.23
Institutional age			
<i>M</i>	83.58	93.55 ^a	86.73
<i>SD</i>	41.38	40.19	41.21
Complexity (number of degree programs)			
<i>M</i>	81.55 ^a	65.49	76.48
<i>SD</i>	38.63	26.12	35.91
Size (total number of faculty)			
<i>M</i>	494.87 ^a	364.46	453.86
<i>SD</i>	333.04	251.36	315.18
CAO's span of control			
<i>M</i>	13.65	14.18	13.82
<i>SD</i>	6.52	8.59	7.23
Affluence (revenues per student) (\$)			
<i>M</i>	6,893.05	10,638.14 ^a	8,079.96
<i>SD</i>	2,686.99	5,946.09	4,370.46
Enrollment			
<i>M</i>	9,225.33 ^a	5,009.16	7,896.45
<i>SD</i>	5,855.97	2,745.80	5,466.30

^a Refers to comparisons within a row where the mean score of one group is significantly ($p \leq 0.05$) different than the score of the other group.

The complexity of the CAO's job can be discerned by the position's span of control — the number of positions that report to the CAO (see Table 1). While an organization's size extends a top-level manager's span of control, the number of hierarchical levels simultaneously narrows it, negating the effect of size alone [6, pp. 56–57]. Thus senior managers in smaller institutions with fewer hierarchical levels are likely to have a wider span of control than those in larger institutions with several hierarchical levels.

Personal Characteristics

A CAO's personal characteristics were thought to be an influence on the managerial roles he or she emphasized [31, p. 102]. Of the 349 CAOs in this study, 21% were women and 79% were men. Although there was no significant age difference between men and women CAOs, there were significant differences between them in their years of managerial experience and their length of time in the current position (see Table 2).

The CAOs had been in their current jobs an average of 4.86 years, with a range of 1 year or less to 29 years. However, they had a mean of 15.95 years of managerial experience (department head or higher). Women CAOs had significantly less time in their current position and significantly less managerial experience than men CAOs (see Table 2). Of the CAOs, 12% of the women and 5% of the men had less than 1 year's experience in their current position. Fifty-five percent of the CAOs (52% of the women and 56% of the men) were appointed from within their current institution.

Although there were some significant differences in personal characteristics between men and women CAOs and some significant organizational differences between private and public colleges, there were, with the exception of organizational affluence, no significant differences be-

TABLE 2
Personal Characteristics: *T*-Test Comparisons

Characteristics	Men <i>n</i> = 276		Women <i>n</i> = 73		All <i>N</i> = 349	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
CAO's age	53.10	5.45	52.35	6.64	52.95	5.71
Years in position	5.15	4.57 ^a	3.77	3.70	4.86	4.43
Years with institution	13.37	10.22	11.63	10.80	13.01	10.35
Years of management experience	16.75	6.04 ^a	12.95	5.85	15.95	6.19

^a Refers to comparisons within a row where the mean score of one group is significantly different ($p \leq 0.05$) than the mean score of the other group.

tween institutions represented by women and men CAOs. Institutions had an average affluence (total revenues divided by total enrollment) of \$8,079.96. The institutions of women CAOs were significantly less affluent (\$7,299.99, *SD* \$2,983.57) than the institutions of men CAOs (\$8,300.69, *SD* \$4,642.98).

Less affluent institutions are unable to attract highly experienced candidates or retain veteran CAOs; therefore, these institutions must select their CAOs from among candidates with less managerial experience. In such cases there may be fewer barriers to women CAO candidates, particularly internal candidates who are respected throughout their institutions.

Managerial Role Profile

The CAOs indicated the extent to which each of the managerial roles were required in their present job. The range of possible scores was a minimum of two and a maximum of eight. Although all of the managerial roles were utilized, small but significant differences were found among them.

Based on a comparison of means, the ten managerial roles separate into five significantly different clusters (see Table 3). The emphasis on the leader and resource allocator roles suggest that CAOs are inside "team" managers [31, pp. 128–129]. Emphasis on the leader role is found where the organization's complex work requires close and difficult coordination among professionals. The resource allocator and disseminator role rankings indicate that CAOs are concerned with the development and maintenance of smoothly running operations; they spend their time building an organizational structure, hiring and training personnel, and overseeing the operations they are developing.

The lack of emphasis on the roles in the last two clusters reinforces the picture that CAOs focus on their organizations' internal operations (see Table 3). The spokesperson and negotiator roles are used primarily by externally oriented "political" managers, who spend their time with

TABLE 3
Managerial Role Clusters: *T*-Test Comparisons

Rank	Managerial Roles	<i>M</i>	<i>SD</i>
1	Leader	7.61	0.67 ^a
2	Resource allocator, disseminator	7.14	0.72 ^a
3	Monitor, entrepreneur	6.70	0.78 ^a
4	Disturbance handler, figurehead, liaison	6.35	0.84 ^a
5	Spokesperson, negotiator	6.14	0.89 ^a

^a Refers to comparisons within the column where the mean score of a cluster is significantly ($p \leq 0.05$) different from the mean scores of all other clusters.

outsiders trying to reconcile the diverse political forces acting on their organizations [31, p. 127]. The liaison and figurehead roles are utilized by "contact" managers, who work outside of their organizations to develop their own and their organizations' reputations by giving speeches, exchanging information and favors, and dealing with people who can do favors for the organization [31, p. 126].

Mintzberg's Managerial Role Groups

Mintzberg classified the ten managerial roles according to their basic nature and sorted them into managerial role groups. Using Mintzberg's role group framework, it is possible to develop a richer understanding of the CAO's job. There were significant differences among the managerial role groups (see Table 4). The internal roles (leader, disseminator, entrepreneur, disturbance handler, resource allocator), dealing with relationships inside academic affairs, are emphasized significantly more than the other four role groups. Internal roles insure that academic affairs operates smoothly as a single unit.

The interpersonal role group (figurehead, liaison, leader) ranked second (see Table 4). Interpersonal roles arise from the CAOs' unique organizational positions. The authority and status that these positions bestow enable the CAOs who hold them to perform roles essentially involving the development of interpersonal relationships; but none involves significant information processing or decision making.

The third-ranked informational roles (monitor, disseminator, spokesperson) (see Table 4) relate to the receipt and dissemination or processing of information and the CAOs' function as the informational nerve center of academic affairs. Interpersonal interaction is incidental

TABLE 4
Managerial Role Group Rankings: *T*-Test Comparisons

Rank	Role Groupings	<i>M</i>	<i>SD</i>
<i>Mintzberg's Typologies</i>			
1	Internal	6.99	0.56 ^a
2	Interpersonal	6.76	0.69 ^a
3	Informational	6.66	0.78 ^a
4	Decisional	6.59	0.70 ^a
5	External	6.33	0.76 ^a
<i>Alexander's Typologies</i>			
1	Operational	7.04	0.61 ^a
2	Strategic	6.85	0.69 ^a
3	Interface	6.24	0.81 ^a

^a Refers to comparisons with the column where the mean score of a role group is significantly ($p \leq 0.05$) different from the mean scores of all other role groups.

in these activities; the information is simply moved or recombined and is not used at the time in making significant decisions.

The decisional role group (entrepreneur, disturbance handler, resource allocator, negotiator) ranked fourth (see Table 4). In decisional roles CAOs use their authority and access to information to participate in their organizations' strategy-making process — the process by which significant decisions are made and interrelated.

The external roles (figurehead, negotiator, spokesperson, liaison, monitor), which deal with relationships outside of academic affairs, ranked fifth (see Table 4). Although there is a significant difference between decisional and external roles, these two role groups are emphasized the least by CAOs.

The managerial role group rankings indicate that CAOs focus on the internal and interpersonal roles. The CAOs' emphasis on internal roles was foretold by the CAOs' top-ranked leader, resource allocator, and disseminator roles (see Table 3). These internal roles are emphasized by those who are second in command and share role responsibilities with the chief executive officer [31, p. 131]. Whereas the second in command has most of the responsibility for the internal roles, the chief executive officer concentrates on the external roles.

Alexander's Managerial Role Groups

The nature of the CAOs' internal focus becomes clearer when their individual managerial roles are grouped using Alexander's [1] typology. Alexander classified Mintzberg's ten managerial roles into three groups: strategic, operational, and interface role groups. The strategic role group (monitor, entrepreneur, resource allocator) links the organization with its environment, determines basic goals and policies, identifies growth opportunities, and allocates resources. Strategic management roles, associated primarily with top management, have broad implications for the organization. The operational role group (leader, disseminator, disturbance handler) involves the day-to-day directing of functional areas, resolves unexpected problems, disseminates needed information, and administers ongoing programs and policies. Operational roles are associated primarily with middle- and lower-level managers. The interface roles (figurehead, liaison, negotiator, spokesperson), exercised by all managers, involve the organization's relationships with its internal and external constituencies.

There are significant differences between each of Alexander's role groups (see Table 4). CAOs emphasize their operational roles significantly more than their strategic and interface roles. There are significant differences between CAOs' strategic and interface roles. When

Mintzberg's and Alexander's typologies are combined, significant differences are found between each of the CAOs' managerial role groups (see Table 4). The CAOs' primary managerial role groups are: operational, internal, strategic, and interpersonal.

The ranking of the CAOs' managerial role groups did not vary according to gender, type of appointment (internal or external hire), type of institutional sponsorship (private or public), or the presence or absence of faculty collective bargaining.

Analysis

What emerges is a picture of the CAO as an internally focused senior-level team manager in a collegial organization trying to develop and maintain a smooth-running operation. The complex nature of the organization's work requires the CAOs' close consultation and cooperation with the faculty, who perform the university's primary work, and the middle managers, who facilitate that work. The emphasis on operational roles helps CAOs to coordinate the faculty's work and prevent items needing institutional attention from "slipping through the cracks." Attention to operational roles allows CAOs to identify and facilitate the work of innovative individuals.

Concern for internal operations does not preclude a CAO's interest in the organization's strategic needs. CAOs scan their institutions and their environments for new opportunities or challenges and help shape the organizational response. The strategic roles help CAOs link their organizations with external constituencies who have an interest in the organizations' work. Strategic roles help CAOs to alert and buffer faculty from potential external intrusions into their work.

The decentralized organizational structure and the collegial rather than bureaucratic nature of universities means CAOs are unable to rely heavily on their formal authority. With wide responsibilities but limited formal power or jurisdiction in some areas, CAOs compensate for these restrictions through effective use of their interpersonal skills to develop mutual understandings and working relationships among various constituencies. Effective CAOs focus on interpersonal roles, rather than decisional roles, to facilitate their organizations' work and define the atmosphere in which that work is conducted.

Given their organizational position, CAOs have the formal authority to make a number of decisions. However, in reality there are organizational limits and consequences when CAOs rely solely on formal authority in collegial organizations. Although CAOs may have the authority to make a decision, the ultimate power to implement it successfully often

depends on the cooperation of faculty and middle managers. However, when the powers of the office are ineffective, the CAO's personal influence and powers of persuasion may be useful.

In a collegial organization there are many decisions that CAOs can only influence and facilitate. Within academe numerous decisions are made by the faculty and middle managers rather than by senior-level managers. Likewise, there are some decisions only the president and the board can make. The CAOs' lack of emphasis on decisional roles bears witness to the collegial nature of academic affairs. In this environment CAOs function as team managers and use their interpersonal roles to create a "team" and coordinate the organization's complex work. A similar pattern is found among CAOs in liberal arts colleges, who compensated for their limited formal authority (power) through the effective use of consensus-building mechanisms [25].

Effective CAOs build consensus among faculty and middle managers and monitor the decision-making process rather than autocratically make organizational decisions. Although CAOs have organizational responsibility and oversight for many areas, they may not have the expertise required in all areas, and therefore they must rely on the growing numbers of professionals and managers who report to them. CAOs cultivate these working relationships through their interpersonal roles, which they use to motivate and maintain the continued development of faculty and staff, a prime function of CAOs in a personnel intensive operation like higher education.

Influence of Organizational and Personal Characteristics

Like other managers, CAOs tend to react to their situations. Identifying and examining the organizational influences on a manager's work results in a better understanding of the nature of managerial work [26, 44]. By restricting this study to CAOs at type I Comprehensive Colleges and Universities [8] the influences of external environment, organizational type, level in the organization, and nature of the supervised function were held relatively constant. With these controls, it was possible to identify the influence of other organizational variables on CAOs' managerial behavior.

Using discriminant analysis it was possible to predict (45.35%) which interpersonal, informational, or decisional role group a CAO emphasized (see Table 5). Three organizational and one personal characteristics were identified as significant predictors (see Table 6). A CAO's span of control and institutional size account for 73.33% of the variance, while the CAO's age and organizational affluence account for 26.67 of the variance.

TABLE 5
Interpersonal, Informational, and Decisional Role Groups:
Predicted Versus Actual Group Membership

Actual Group	<i>n</i>	Predicted Group Membership		
		<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>
Group 1	98	70	13	15
Interpersonal		71.4%	13.3%	15.3%
Group 2	87	44	33	10
Informational		50.6%	37.9%	11.5%
Group 3	76	43	16	14
Decisional		58.9%	21.9%	19.2%
45.35% of group cases correctly classified				

TABLE 6
Interpersonal, Informational, and Decisional Role Groups: Significant Characteristics

Characteristics	Function 1	Function 2
Percent of Variance	73.33%	26.67%
Organizational characteristics		
Span of control	0.81246*	0.19540
Size	-0.53582*	-0.15535
Affluence	0.41348	-0.56597*
Personal characteristics		
Age	0.04152	0.86642*

NOTE: Rotated standardized discriminant function coefficients ($p \leq 0.20$)

There is a relationship between a CAO's span of control, the institution's size, and a CAO's emphasis of interpersonal roles (see Table 6). As span of control increases, more middle managers or experts are reporting to a CAO who may not have the technical expertise necessary to be involved in the detailed decisions of a manager's or expert's work. In such cases, CAOs must use their interpersonal roles to "define the atmosphere in which the organization will work" [31, p. 60].

Similarly, the relationship between an institution's size and a CAO's preference for interpersonal roles may be explained. As an organization's size increases, the number of hierarchical levels simultaneously narrows a CAO's span of control. The larger the institution, the smaller a CAO's span of control and the less the need for interpersonal roles; the smaller the institution, the larger a CAO's span of control and the greater the need for interpersonal roles.

The interpersonal role emphasis is influenced by a CAO's age and the institution's affluence (see Table 6). Older CAOs have more experience

using interpersonal roles and developing interpersonal skills, and they are inclined to use them. CAOs in less affluent institutions may have a greater need for interpersonal roles than those in more affluent institutions. At less affluent colleges, besides having a large span of control because of the institution's smaller size, CAOs must use their interpersonal roles to generate good will, to obtain favors, and to procure goods or services that they are unable to obtain through their institution's limited financial means, whereas at more affluent colleges CAOs tend to have smaller spans of control, and they may not have to rely on their interpersonal roles and favors to obtain the goods or services they need.

There may also be an element of self-selection. Older CAOs who enjoy the interpersonal aspects of their job may not leave their jobs as readily for the challenges found in a more affluent, perhaps larger or more impersonal university; younger CAOs, however, may be more willing to leave their jobs to advance their careers. The influence of age on the CAO's emphasis of interpersonal roles (figure head, liaison, leader) reflects Cooper's [11] previous findings of a relationship between age and the importance of the leader and resource allocator roles.

Four organizational variables (organizational age, complexity, sponsorship—public or private, and faculty collective bargaining) and four personal variables (gender, years with the organization, years in the position, and years of management experience) were not identified as predictors of the CAOs' managerial role group emphasis. Gender's lack of influence on CAO's managerial roles mirrors Cooper's [11] findings of no significant difference between gender and the importance of managerial roles.

The lack of a relationship between organizational control (public or private) and the CAOs' managerial role groups confirms earlier research results of no significant differences between the managerial roles of public and private sector managers [23, 24]. Mangieri and Arnn [26] found that the responsibilities and qualifications of CAOs in public and private universities were similar. With identical responsibilities, CAOs at public and private universities exhibit similar managerial behaviors.

The findings of this study on CAOs' managerial roles contribute to the picture emerging from earlier research that organizational, rather than personal, factors have more influence on the roles managers emphasize. Among the four organizational (span of control, institutional size, and affluence) and personal (age) variables identified as predictors of the role groups CAOs emphasize, only one was personal, and it functioned only as a secondary predictor.

Implications

Effective managerial behavior and organizational structures are not accidents; organizations and their managers seek structures and behavior that effectively support the organization's work [4, p. 42]. Managerial effectiveness at any level depends on the manager's ability to perceive and learn the role behaviors that the job demands [3, p. 405; 40, p. 114]. The time managers spend in selected managerial roles is related to their performance and organizational effectiveness [33], and managers whose role performances match their organizations' needs and expectations are more successful than managers who do not [46, 47].

Because the required managerial behavior varies according to a number of organizational factors, potential CAOs should remember that the actions that made them a successful department chair or dean may not serve them well as a CAO. Future CAOs must know that the managerial nature and role requirements of the CAO's position appear to be relatively uniform and defined by organizational factors. Under ambiguous conditions CAOs confront a broad range of demands; however, because the number of demands exceeds their managerial capacity to handle them, CAOs must focus on their managerial roles selectively [19, p. 142].

Efforts to impose a managerial emphasis based on personal preference rather than organizational needs is not in the best interests of the organization or the individual. What CAOs have control over is not which roles need to be performed but how those priority roles are performed. Take-charge style individuals considering a CAO's position need to ask themselves whether they would be comfortable in a situation where collaboration and interpersonal skills are the more effective managerial behaviors, while individuals who are visionary leaders but do not share information easily or who have difficulties allocating resources must ask themselves how they will compensate for these deficiencies.

Knowing the managerial nature of the CAO's job, search committees may be better able to match the candidates' attitudes and attributes with the job's managerial role requirements. Committees should look for candidates who are comfortable being motivators and team builders. Individuals who are at ease leading, shaping, and moving the organization by pushing and prodding rather than by pulling and proclamation, who can motivate, innovate, and manage from the wings rather than from center stage may be better suited for a CAO's position. Individuals who can build consensus, work through others, and who find consultation,

cooperation, and coordination the way to guide and facilitate the organization's work are in tune with the job's managerial needs.

A better fit between the candidate's and the job's managerial role requirements should reduce role conflicts and ambiguities and contribute to less CAO dissatisfaction, better managerial performance, and improved institutional effectiveness. Knowing what roles are required will speed the acclimation of new CAOs. With an increased understanding of their managerial roles and the influence of organizational and personal characteristics on role performance, CAOs should be better able to serve the needs of their organizations, reduce job-related stress, and cope with the ambiguities endemic to their managerial lives.

With a clear picture of their job's managerial nature and the confidence that they are equal to the task of their primary managerial roles, CAOs should feel more comfortable in exercising the increased leadership and implementing the managerial techniques required to solve higher education's challenges.

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Disciplinary Differences in Faculty Salaries

Does Gender Bias Play a Role?

Disciplinary differences in faculty salaries are large, and they are increasing. In 1993–94, assistant professors in library sciences earned \$35,795, on average, representing a 48% increase over average salaries in 1983–84. In contrast, assistant professors in business averaged \$57,573 in 1993–94, a 92% increase over average salaries ten years earlier (Hamermesh, 1994). These salary disparities are commonly attributed to impartial market forces — specifically, the supply of qualified workers relative to the demand for them by employers. Thus, some disciplines, such as library sciences, pay less well than others, such as business, because in the former there are too many workers relative to the number of available positions.

This labor-market view of wage setting appears to be taken for granted by many, and it is now a common defense among colleges and universities facing law suits over faculty salary inequities. The American Association of University Professors (AAUP) reports average disciplinary salaries annually but rarely discusses factors that contribute to these differences, suggesting tacit acceptance of the disparities. Richard Howe, director of the annual College and University Personnel Association (CUPA) faculty salary studies, contends that disciplinary differences in salary result solely from unbiased market factors (*Seider v. Mercer County Community College*, 1995). Like the AAUP, CUPA publishes information about average salaries by discipline and faculty rank

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without analyzing the reasons for these differences. Indeed, Howe recommends that administrators use CUPA data to set faculty salaries (American Association of State Colleges and Universities, 1989a, p. 2; 1989b, p. 2). Yet if salary disparities across disciplines incorporate gender bias, using salary surveys to set faculty salaries clearly perpetuates inequities.

Despite the widespread view that disparities in disciplinary salaries result solely from market forces, some writers have expressed concerns about issues of faculty morale and recruitment and equity and job comparability (Hamermesh, 1988; Semelroth, 1987; Hansen, 1985, 1986; Sojka, 1985). As Semelroth (1987) recognizes, salary disparities across academic fields have important ramifications for the earnings gap between faculty women and men. Not only do the highest-paying fields have the lowest representation of women, but the greatest salary growth in recent years has occurred in disciplines with relatively few women. Consequently, growing salary disparities across disciplines may be increasing the difference between the average salaries of men and women.

The relationship between the percentage of women in academic disciplines and salary levels has raised concerns among those in feminizing disciplines. The American Psychological Association (APA) recently established a task force to study the causes and consequences of the feminization of the field. Of particular concern is the possibility that greater representations of women in the profession will be accompanied by lower pay and prestige (Roos, 1996; Bellas & Reskin, 1994; see also Raymond, 1991). The APA conducted a roundtable session on the feminization of occupations at its 1994 annual meetings, hosting representatives from sociology and various medical fields such as pharmacology and optometry. Similarly, the American Sociological Association held a special session on the feminization of sociology at its 1995 annual meetings (Roos, 1996).

These issues and concerns surrounding the negative association between salary levels and the percentage of women faculty in academic disciplines call for greater understanding of the factors that influence faculty salary setting to determine whether gender bias enters the process. This study examines the extent to which labor-market conditions and the sex composition of academic disciplines influence average disciplinary salaries, controlling for differences in the average human capital and productivity levels of faculty across disciplines. I begin by discussing relevant theoretical perspectives and prior research. I then outline the study's data and methods, present its findings, and conclude with policy recommendations.

Relevant Theory and Prior Research

Labor-market conditions. A common explanation for disparities in the average salaries of faculty across academic disciplines is variation in the labor-market conditions associated with different fields. Academia is not insulated from conditions in external labor markets, and faculty salaries vary according to the degree to which academic employers must compete with other employers for qualified workers (Bowen & Schuster, 1986; Buchanan & Tollison, 1981; Waldauer, 1984). Technological fields like computer science and engineering, as well as business and economics, are high-demand fields outside academia, which drives faculty salaries up in these disciplines. In contrast, there is low demand outside academia for those trained in traditional liberal arts fields, such as history and English, so academic employers can pay relatively low salaries to faculty in these areas. According to the labor-market perspective, although low-demand fields tend to have higher concentrations of women, this association is not a causal one. Rather, women simply choose to enter disciplines with poorer labor-market conditions and pay.

Few would argue that the labor-market conditions associated with academic disciplines are irrelevant to faculty salaries. Although data on faculty vacancies across fields are sparse, Waldauer (1984) did demonstrate that there are negative relationships between average disciplinary salaries and unemployment rates, and between salary levels and the percentage of new doctorates in academic employment — a measure of the degree of external competition for workers. While he acknowledged that women are concentrated in lower-paying disciplines, Waldauer asserted that “the observed differences in academic salaries by discipline are not the result of job discrimination, but, rather, reflect labor supply differences in the opportunity costs facing faculty in terms of the employment alternatives outside of higher education” (p. 144).¹ Yet Waldauer’s claim is based on assumptions about the exclusive role of supply and demand mechanisms in wage setting, not empirical evidence.

Sex composition. The disparity between the average earnings of women and men is closely linked to the division of labor by sex. Not only is there a division between unpaid (“women’s”) work and paid (“men’s”) work, but the labor market itself is highly segregated by sex, with women predominating in lower-paying occupations and jobs (Blau & Ferber, 1992; Reskin & Hartmann, 1986; Reskin, 1984; Treiman & Hartmann, 1981). Part of the sex difference in earnings may be due to the sorting of women into jobs that require less skill, effort, responsibility and onerous working conditions than jobs in which men predominate. However, research on the larger labor market documents a depres-

sive effect on the average pay in occupations and jobs with higher proportions of women, independent of the characteristics of workers and jobs (England, 1992; Michael et al., 1989; Treiman & Hartmann, 1981).² This suggests that part of the disparity between men's and women's earnings stems from discrimination against occupations or jobs that are disproportionately filled by women. As Feldberg (1984, p. 319) indicates, "The structure of the market incorporates historic customs, prejudices, and ideologies that connect the worth of different kinds of work with ideas about the inherent worth of workers who vary by sex, race, age, ethnicity, and other social characteristics." Sex segregation in the labor market helps to maintain a gender hierarchy in which work done by men is valued and rewarded more highly than that done by women (Reskin, 1988; Feldberg, 1984). Pervasive sex segregation and a persistent wage gap have raised the issue of comparing the value or worth of dissimilar work and establishing wage-setting policies whereby jobs requiring comparable amounts of compensable factors are paid equivalently. A comparable worth remedy is therefore aimed at reducing the wage gap by eliminating gender bias in wage-setting practices rather than by reducing sex segregation.

Applying this perspective to academia raises the possibility that academic salary setting is influenced by the sex composition of disciplines (Bergmann, 1985; American Association of University Professors, 1992). If cultural biases devalue women and the work that women do, academic administrators may set salaries lower for both women and men in fields where women concentrate, independent of labor-market conditions and other relevant salary predictors.³ Empirical tests of the comparable worth perspective in academia have been limited. Preliminary work by Staub (1987) clearly documented the negative relationship between the proportions of women in academic disciplines and average entry-level salaries. Using aggregate-level data, she found that a discipline's salary advantage (measured by the ratio of average disciplinary salary to average faculty salaries overall) began to decline after a discipline changed from male-dominated to at least 30% women. Staub then analyzed the effects of changes in the sex composition of academic disciplines on relative salary levels over time, establishing the strong possibility of a causal link between the two variables. However, she did not assess the possibility that differences in labor-market conditions or the characteristics of faculty contributed to disciplinary variation in faculty salaries.

In a more rigorous study, Pfeffer and Davis-Blake (1987) examined the relationship between the sex composition of college administrator positions (e.g., admissions officers, academic deans) and salaries, con-

trolling for incumbent and institutional characteristics as well as the jobs themselves (and therefore associated labor-market conditions). Pfeffer and Davis-Blake found a negative association between the proportion of women in particular administrative posts and the salaries in these positions. Consistent with Staub's longitudinal analysis, Pfeffer and Davis-Blake found evidence of an initial "tipping point" (around 30% women) after which increasing proportions of women had a strong negative effect on average salaries. The researchers suggested that at this point positions begin to be considered "women's work" and are consequently devalued. Pfeffer and Davis-Blake showed that when the proportion of women in an administrative position reached approximately 40%, the strong negative effect of the percentage of women on salaries declined. They surmised that once the proportion of women in a position reaches a certain threshold level, additional increases in the proportion of women exert a weak effect on salaries.

Pfeffer and Davis-Blake also found evidence of a two-way relationship between the proportion of women in administrative positions and salaries. Increasing proportions of women depressed wages, but lower wage levels also appeared to promote the hiring of women. This is consistent with a "queuing" perspective, which hypothesizes that as jobs become less desirable to men, employers must hire increasing proportions of women (Reskin & Roos, 1990; Roos & Jones, 1993; Thurow, 1975).

Recent work by Bellas (1994) provides the most conclusive evidence to date of a negative effect of the percentage of women in academic disciplines on faculty salaries. Using a contextual model, Bellas examined the relative effects of the sex composition and labor-market conditions associated with academic disciplines, controlling for individual-level predictors of faculty salaries (e.g., highest degree, years of experience, publications). She found that disciplinary labor-market conditions exerted direct effects on individual faculty salaries, but so did the percentage of women in a faculty member's discipline. Each additional percentage of women in an academic discipline depressed both men's and women's average annual salary by \$32. In addition to this disciplinary-level effect of the percentage of women in academic disciplines on faculty salaries, Bellas found evidence of individual-level sex discrimination. Women earned approximately \$900 less per year on average than comparable men within the same academic field. The current disciplinary-level analysis complements Bellas's work by using a different analytic approach to address the same research question and extends it by including dynamic models.

Control Variables: Human Capital and Productivity. The purpose of this study is to determine whether labor-market conditions are responsi-

ble for variation in average disciplinary salaries, or whether the percentage of women faculty in disciplines also exerts an independent effect on salary levels. It is possible, however, that disciplinary differences in the characteristics of faculty and their work may at least partly explain disparities in average salaries. Employers presumably compensate workers on the basis of their human capital and productivity. Because women in the aggregate have lower educational levels, fewer years of experience and publish less than men (Bellas, 1993; Chamberlain, 1988) average salaries in fields with higher concentrations of women may be lower than those in fields with higher concentrations of men, all else being equal. Consequently it is important to control for the possibility of compositional effects on average disciplinary salaries (Rosenbaum, 1985).

Data and Measures

Average entry-level salary. The dependent variable for this analysis is the average, full-time 1988–89 salary of new assistant professors for 16 academic disciplines. New assistant professors are those in their first year as assistant professors. I obtained salary data from two sources: Oklahoma State University's (OSU) annual survey of faculty at institutions belonging to the National Association of State University and Land Grant Colleges (Oklahoma State University, 1989) and a yearly survey of faculty at state and private colleges and universities sponsored by the American Association of State Colleges and Universities and the College and University Personnel Association (American Association of State Colleges and Universities, 1989a, 1989b). I averaged OSU and CUPA figures (after first averaging CUPA figures reported separately for state and private institutions).⁴ The dynamic models require measures of average full-time, entry-level salaries for 1978–79. I obtained these figures from the OSU study for 1978–79 (CUPA surveys did not begin until 1982–83). The analyses include only disciplines or fields for which I could construct labor-market and human-capital measures (discussed below). This constraint yielded the following 16 disciplines: agriculture, biology, chemistry, drama, earth science, economics, engineering, English, foreign languages, history, mathematics, music, philosophy, physics, psychology, and sociology/anthropology.

Percentage female. For the 1988–89 cross-sectional analysis, I estimated the percentage of women faculty in each of the 16 disciplines from the 1984 Carnegie Survey of Faculty (Carnegie Foundation for the Advancement of Teaching, 1984). The survey solicited information from a national sample of faculty at institutions ranging from two-year colleges to research universities. Researchers first selected a stratified sam-

ple of 310 institutions (probability proportionate to number of faculty), then randomly selected 9,968 faculty members from these institutions. Fifty-one percent, or 5,057 individuals, returned usable questionnaires (Opinion Research Corporation, 1984).⁵ Survey respondents in the 16 fields under study total 2,804.

For the dynamic models, I estimated the percentage of women faculty in each of the 16 disciplines from the 1975 Carnegie Survey of Faculty (Carnegie Council on Policy Studies in Higher Education, 1975). Researchers first selected a stratified sample of 550 institutions, then surveyed nearly 53,000 randomly selected individual faculty members. Fifty-three percent, or 25,262 individuals, returned usable questionnaires (Roizen et al., 1978).⁶ Survey respondents in the 16 fields under study total 14,817.

Labor-market conditions. I constructed three measures of disciplinary labor-market conditions — the unemployment rate, the percentage of qualified workers employed in nonacademic jobs, and median nonacademic wage. I obtained measures for the cross-sectional analysis from National Science Foundation (NSF) and National Research Council (NRC) publications for 1987. NSF's biennial reports, *Characteristics of Doctoral Scientists and Engineers in the United States*, detail demographic and employment characteristics for doctoral scientists and engineers, while NRC's *Humanities Doctorates in the United States* do so for humanists.⁷ The dynamic models include earlier measures of the independent variables, which I obtained from NSF and NRC reports for 1977.

The *unemployment rate* refers to the percentage of persons with PhDs who are not employed and are looking for work. Although unemployment rates provide an indication of market conditions for academic disciplines, they exclude underemployed and discouraged workers. Such workers are undoubtedly most prevalent in disciplines where there is low demand for workers relative to their supply. Consequently, this measure may underestimate the risk of unemployment, although unemployment rates should be higher for lower-demand disciplines than for those with higher employer demand.

I calculated the *percentage of workers employed in nonacademic jobs* as the percentage of those with doctorates not employed by colleges and universities. Although the percentage of workers employed in nonacademic jobs provides a measure of demand for workers, the nature of these jobs is unclear. Employment in nonacademic jobs may mask underemployment if those with PhDs work in fields other than those in which they were trained or in jobs for which they are overqualified.⁸

Median nonacademic wage averages median salaries for all nonacademic employment sectors, weighted by the proportion of workers in

each sector. Although this variable provides an indication of disciplinary labor-market conditions, nonacademic wage is probably a biased measure. Evidence suggests that nonacademic wages are influenced by the sex composition of workers in fields generally (Michael et al., 1989; Treiman & Hartmann, 1981). Therefore, controlling for nonacademic wage will underestimate any effect of the sex composition of academic disciplines on faculty salaries.

Labor-market index. Because these three variables are imperfect measures of labor-market conditions, they were not individually statistically significant when I entered them simultaneously into the regression equation. Therefore, I constructed a labor-market index designed to reflect the desirability of labor-market conditions for academic disciplines. I first converted raw scores to z-scores, then multiplied unemployment z-scores by -1 so that the values of all index items ranged from low to high. I added the standardized scores and divided by three to obtain a mean labor-market measure for each field. Disciplines with high scores, such as engineering and economics, have the most desirable labor-market conditions (low unemployment, a high percentage of workers employed in nonacademic jobs, and/or high nonacademic wage level). The inter-item alpha reliability for the labor-market index is 0.70 (see Table 1A for correlations between the labor-market variables).⁹

Human-capital characteristics and productivity. I constructed three human-capital and productivity measures for faculty in each of the 16 disciplines: the percentage of faculty holding the PhD, average number of publications, and average number of sources of grant support.¹⁰ For the 1988–89 cross-sectional analysis, I obtained these measures from the 1984 Carnegie Survey of Faculty. For the dynamic models, I calculated the same three human-capital measures using data from the 1975 Carnegie Survey of Faculty.

The *percentage of faculty with a doctorate* provides a measure of the educational attainment of faculty in each discipline. Because faculty in some lower-paying disciplines, such as music and drama, are less likely to hold the doctorate than faculty in other disciplines, lower educational investments by faculty in these disciplines may be at least partly responsible for their lower average salaries.

TABLE 1A

Correlation Matrix of Labor-Market Index Items for 1988–89 Salary Analysis ($N = 16$)

	1	2	3
1. Unemployment	1.000		
2. Percentage nonacademic jobs	–0.197	1.000	
3. Nonacademic wage	–0.521	0.586	1.000

The average number of *publications* for each discipline refers to the mean number of books and articles published by faculty in each discipline during the two years prior to the Carnegie survey. Although number of publications is not the only measure of faculty productivity (see Boyer, 1990), it is a standard and quantifiable one. Differences in publication rates across academic fields may contribute to administrators' perceptions of the value of disciplines and consequently to salary variation.¹¹

Research support refers to the average number of different sources of research funding that faculty in each discipline obtained during the twelve months prior to the Carnegie survey (range, 0 to 6). These types of support include: (1) institutional or departmental, (2) federal agencies, (3) state or local government agencies, (4) private foundations, (5) private industry, and (6) other sources. Admittedly, this is a crude measure of research support, but unfortunately the Carnegie surveys did not request information about grant dollars. Like publications, research support provides a measure of productivity that could influence administrators' perceptions of the value of faculty in different fields and, consequently, salary allocations.

Human-capital index. As for labor-market conditions, I constructed an index to measure the human capital and productivity of faculty across academic disciplines. The correlations between these variables produced an inter-item alpha reliability of 0.89 (see Table 1B). Disciplines with relatively high human-capital scores, such as agriculture and earth science, are those in which high proportions of faculty hold the PhD and/or average publications rates, and numbers of types of research support are high.

Analysis

I regressed the average 1988–89 disciplinary salary of new assistant professors on the labor-market index, the percentage of women in academic disciplines (logged), and the human-capital index. Because of the likelihood of heteroscedasticity in the data (unequal variances in the error terms of observational units), I used estimated generalized least

TABLE 1B
Correlation Matrix of Human-Capital Index Items for 1988–89 Salary Analysis ($N = 16$)

	1	2	3
1. Percentage with PhD	1.000		
2. Publications	0.788	1.000	
3. Research support	0.507	0.891	1.000

squares (EGLS) regression, weighting each variable by the square root of the number of individuals in each discipline (weighting is based on the dependent variable, salary, so this refers to the number of new assistant professors surveyed in the OSU and CUPA studies).¹² The initial regression model is shown below and illustrated in Figure 1:

$$\text{Average entry-level disciplinary salary} = f(\text{labor-market index, percentage female, human-capital index, } e)$$

In addition to the cross-sectional model predicting 1988–89 entry-level salaries, I constructed a dynamic model to assess the effects of labor-market conditions, percentage female (logged), and the human-capital characteristics of faculty on *changes* in average entry-level salaries (Hannan & Young, 1977; Markus, 1979). As shown below, I predicted average 1988–89 entry-level salaries with 1978 measures of the labor-market index, percentage female, and the human-capital index, as well as 1978–79 entry-level salaries.

$$\text{Average 1988–89 entry-level disciplinary salary} = f(\text{1978–79 entry-level salary, 1978 labor-market index, 1978 percentage female, 1978 human-capital index, } e)$$

Because dynamic models have the obvious advantage of showing how explanatory variables relate to changes in dependent variables over time, this model is important in establishing any causal relationship between the percentage of women faculty in disciplines and average entry-level

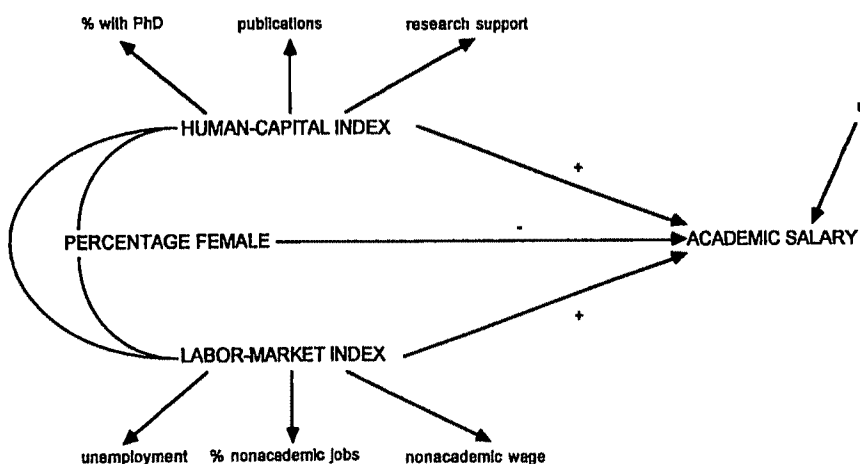


FIG. 1 Model Predicting Average Disciplinary Salary for New Assistant Professors

salaries. In addition, by including 1978–79 entry-level salary as an independent variable in the model, I have in effect controlled for other variables that may influence disciplinary salaries but are omitted from the regression model, provided these variables remained relatively stable over the ten-year period (Hannan & Young, 1977). That is, any omitted variable that might explain the negative relationship between percentage female and average salary must be correlated with 1988 salaries, but not with 1978 salaries.

To address the issue of two-way causality between the percentage of women in academic disciplines and average entry-level salaries, I also regressed the percentage of women in academic disciplines in 1988 on 1978 percentage female, 1978–79 entry-level salary, and the 1978 labor-market and human-capital indices:

$$\begin{aligned} \text{Percentage Female, 1988} = f(\text{1978 percentage female,} \\ \text{1978–79 entry-level salary, 1978 labor-market index,} \\ \text{1978 human-capital index, } e) \end{aligned}$$

This model will assess whether salary levels influence changes in the percentage of women in academic disciplines over time.

Results and Discussion

Descriptive Statistics

Table 2 reports the values of the regression variables for each academic discipline in 1988 as well as their ranges, means, and standard deviations. This table illustrates that higher-paying disciplines tended to have fewer women, more desirable labor-market conditions, and higher human-capital scores. Lower-paying disciplines had relatively high concentrations of women, poorer labor-market conditions, and lower human-capital scores. These relationships are confirmed by the correlation coefficients shown in Table 3.

A scatterplot of the percentage of women faculty in academic disciplines by average 1988–89 entry-level salary shows a nonlinear relationship between the two variables (Figure 2). The figure illustrates that disciplines with higher proportions of women have lower average salaries, but among disciplines that have exceeded a certain threshold level of women (around 15–20 percent), average entry-level salaries do not decrease as precipitously.

Regression results, 1988–89. Results of the regression of average 1988–89 entry-level salaries on the percentage of women faculty (logged), the labor-market index, and the human-capital index are shown

TABLE 2
Values for 1988–89 Salary Regression Variables

Discipline	Average Entry-Level Salary, 1988–89	% Female	Unemployment	% in Nonacademic Jobs	Nonacademic Wage	Labor-Market Index ^a
Engineering	\$38,478	2.9%	0.6%	64.8%	\$59,794	1.34
Economics	34,257	12.2	0.6	34.0	63,627	0.90
Mathematics	31,109	21.3	1.0	17.5	54,866	0.06
Physics	30,735	2.2	1.0	43.3	55,690	0.56
Agriculture	30,394	5.7	1.6	43.7	44,783	-0.16
Earth science	30,004	10.1	1.2	62.3	54,012	0.74
Biology	29,123	15.6	1.7	33.2	47,120	-0.33
Chemistry	28,889	8.8	1.6	63.7	53,931	0.52
Psychology	27,573	30.9	0.7	58.9	50,493	0.84
Sociology/anthropology	26,608	29.1	2.8	19.8	39,178	-1.51
History	26,115	10.8	1.2	23.5	41,396	-0.42
Foreign languages	25,744	44.4	1.2	18.8	36,927	-0.66
Philosophy	25,626	5.2	1.0	19.7	missing	-0.23
Music	25,579	24.7	1.8	24.5	29,129	-1.18
Drama	25,468	27.6	0.9	18.7	45,000	-0.20
English	25,170	42.1	0.8	20.4	38,666	-0.34
Mean	28,804	18.4	1.23	35.43	47,641	0.00
Standard deviation	3,690	13.5	0.57	18.13	9,534	0.78 ^b
Range	13,308	42.2	2.20	47.30	34,498	2.85

Discipline	% with PhD	Publications (last 2 yrs.)	Research Support	Human-Capital Index ^c
Engineering	71.3%	3.05	1.12	0.37
Economics	82.3	2.61	0.82	0.23
Mathematics	64.4	1.40	0.29	-0.87
Physics	79.3	2.90	1.07	0.43
Agriculture	81.3	4.10	2.10	1.54
Earth science	82.1	3.95	1.51	1.13
Biology	88.6	3.63	1.23	0.97
Chemistry	86.2	3.02	1.01	0.57
Psychology	87.0	2.67	0.63	0.22
Sociology/anthropology	78.9	2.26	0.65	-0.07
History	82.9	2.14	0.49	-0.13
Foreign languages	67.2	2.18	0.48	-0.42
Philosophy	86.7	2.77	0.35	0.07
Music	35.4	1.12	0.25	-1.54
Drama	31.4	0.75	0.26	-1.74
English	63.1	1.70	0.34	-0.76
Mean	73.0	2.51	0.79	0.00
Standard deviation	17.4	0.96	0.52	0.90 ^b
Range	57.2	3.35	1.85	3.28

^a Average of z scores for unemployment (times -1), percentage of workers in nonacademic jobs, and median nonacademic wage.

^b Not equal to one because of rounding.

^c Average of z scores for percentage of faculty with PhD, average number publications during past two years, and average number of sources of research support.

TABLE 3
Correlation Matrix of 1988–89 Salary Regression Variables ($N = 16$)

	1	2	3	4
1. entry-level salary, 1988–89	1.000			
2. Percentage female	-0.563	1.000		
3. Labor-market index	0.733	-0.596	1.000	
4. Human-capital index	0.452	-0.520	0.425	1.000

in Table 4a. Controlling for the effects of human capital and productivity, the labor-market measure did influence salary levels. Each standard deviation increase in the labor-market measure resulted in a \$2,267 advantage in the average salaries of new assistant professors.

The percentage of women in an academic discipline also had a significant negative, nonlinear effect on average salaries. The coefficient for percentage female reflects the effect on average salaries of a one unit change in the natural log of percentage female. To facilitate interpretation, divide the value of the coefficient for percentage female by any percentage to determine the effect of percentage female on average salaries *at that particular percentage of women* (Stolzenberg, 1980, pp. 468–470).

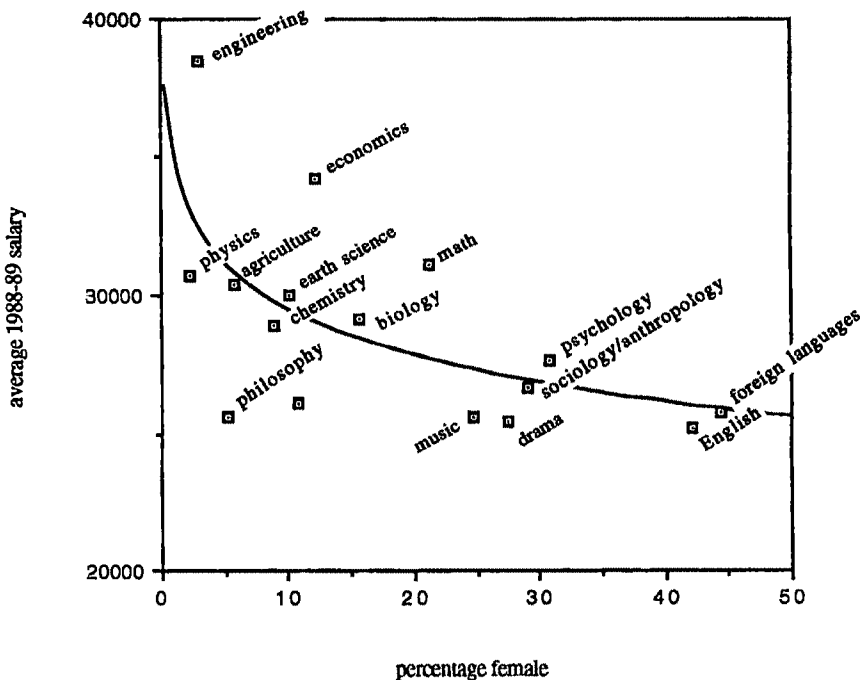


FIG. 2. Scatterplot of Percentage Female by Average 1988–89 Disciplinary Salary and Logarithmic Regression Line

TABLE 4A

Estimated Generalized Least Squares (EGLS) Regression of 1988–89 Average Entry-Level Salary on Percentage Female, Labor-Market Index, and Human-Capital Index

Variable	<i>b</i>	s. e. of <i>b</i>	beta
Percentage female (ln)	-5088.39*	1997.00	-0.552
Labor-market index	2267.07*	938.10	0.478
Human-capital index	191.29	908.10	0.047
Constant	35017.50		

$R^2 = 0.53$

one-tailed test; 12 degrees of freedom

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.005$.

TABLE 4B

Effect of Percentage Female on Average 1988–89 Disciplinary Salary

Percentage Female	Effect of Percentage Female on Disciplinary Salaries ^a
10%	-\$508.84
20	-254.42
30	-169.61
40	-127.21
50	-101.77

^aThe effect of percentage female = $b/\text{any percentage}$; $b = -5088.39$ (see Table 4a).

Table 4b illustrates these calculations. Among disciplines with 10% women, for example, each additional percentage of women would depress new assistant professors' average salaries by \$509; among disciplines with 50% women, the negative effect would be only \$102. Thus, consistent with previous research by Staub (1987) and Pfeffer and Davis-Blake (1987), the negative effect of percentage female on average salary diminishes once disciplines feminize and are presumably devalued relative to disciplines with fewer women.¹³

Dynamic model: 1988–89 salary as dependent variable. To assess the effects of the percentage of women in academic disciplines on *changes* in average entry-level salaries, I predicted salary at Time 2 (1988) with Time 1 (1978) measures of salary, percentage female (logged), labor-market index, and human-capital index (see Appendix for correlation matrix; for the reader's interest, I include 1988 variables in the matrix, although I did not use all of them in the dynamic regression model). Regression results, shown in Table 5, indicate that the percentage of women in academic disciplines in 1978 had a significant negative, non-linear effect on the average 1988–89 salaries of new assistant professors, net of the effects of earlier salary levels (also statistically significant), disciplinary labor-market conditions, and the average human

capital and productivity of faculty. Thus, although the overall salary structure shifted upward between 1978 and 1988, disciplines with higher percentages of women showed slower rates of salary growth than disciplines with lower proportions of women. This finding suggests that faculty in feminizing disciplines do indeed have cause for concern.

Table 5 also shows that the 1978 labor-market index did not significantly affect 1988–89 average entry-level salaries, net of the effects of the percentage of women in academic disciplines and salary levels in 1978 and controlling for human-capital and productivity measures. The insignificance of the labor-market index may be due in part to instability of the labor-market measure over time. That is, what the labor-market index items represent may have changed over the ten-year period. For example, if unemployment declined between 1978 and 1988 because more people obtained jobs in a field other than that for which they were trained, unemployment and the percentage of qualified workers employed in nonacademic jobs do not measure exactly the same thing for the two time periods. However, it may be that the statistical insignificance of the 1978 labor-market index simply indicates that earlier market conditions are unrelated to later salaries. Both cross-sectional analyses showed that the labor-market index significantly influenced average entry-level salaries (see note 13). This suggests that entry-level salaries may respond to more recent rather than to earlier labor-market conditions.

Dynamic model: percentage female as dependent variable. To investigate the possibility of a two-way relationship between the percentage of women in academic disciplines and average entry-level salaries, I estimated a dynamic model using the percentage of women in academic disciplines as the dependent variable. Queuing theory suggests that disciplines with relatively low salaries should have the greatest increases in

TABLE 5
Estimated Generalized Least Squares (EGLS) Regression of 1988 Average Entry-Level Salary on 1978 Average Entry-Level Salary, Percentage Female, Labor-Market Index, and Human-Capital Index

Variable	<i>b</i>	s. e. of <i>b</i>	beta
Entry-level salary, 1978	2.039*	0.778	0.609
Percentage female (ln), 1978	-3901.210*	1831.000	-0.454
Labor-market index, 1978	256.322	834.800	0.064
Human-capital index, 1978	-703.343	603.600	-0.174
Constant	1392.540		

$R^2 = 0.84$

one-tailed test; 11 degrees of freedom

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.005$.

women faculty over time because men eschew these disciplines for more lucrative employment. In other words, women have greatest access to disciplines that are least desirable to men. To determine whether earlier entry-level salaries affect the proportion of women in disciplines, I predicted the percentage of women in academic disciplines at Time 2 (1988) with Time 1 (1978) measures of percentage female, salary, labor-market conditions, and the human-capital index.

Rather than using faculty to represent the percentage of women in each discipline, I substituted the percentage of women earning terminal degrees in each field. This measure would seem to be the earliest indicator of changes in the percentage of women in disciplines and therefore be most responsive to any changes in entry-level salaries. I calculated the proportion of doctoral degrees women earned during the three years prior to the two salary years (1978–79 and 1988–89) using data reported in the *Digest of Education Statistics* (National Center for Education Statistics, annual). Combining three years produced adequate numbers from which to construct the measure and decreased the likelihood of influence by any unusual fluctuations in PhD production. For disciplines in which the doctorate is typically not the terminal degree (drama and music), I calculated a weighted average using the percentage of women earning both master's and doctoral degrees.

Results for this model show that 1978–79 salary only weakly influenced the proportion of women in academic disciplines in 1988 ($p < 0.1$; see Table 6). The borderline significance of average entry-level salaries may reflect the short time between the two periods represented in the dynamic model relative to the amount of time required to obtain a doctorate or the small number of disciplines in the analysis.

Table 6 also shows, as one would expect, that the proportion of women earning doctorates in 1978 strongly predicted their representation among graduates in 1988. In addition, the 1978 human-capital index exerted a significant positive effect on the percentage of women earning doctorates in 1988. This indicates that disciplines in which faculty have the highest levels of human capital and productivity are those with the greatest increases in the percentage of women earning doctorates. In contrast to the human-capital index, the 1978 labor-market measure did not significantly affect the percentage of women earning doctorates in 1988. Theoretically, the labor-market index should serve as a measure of the desirability of academic disciplines, and earlier labor-market conditions should influence the proportion of women earning doctorates at some later time. However, as I suggested previously, the time period under study may be too short to reveal any adjustments in the proportion of women to earlier labor-market conditions, given the

TABLE 6

Estimated Generalized Least Squares (EGLS) Regression of 1988 Percentage Female on 1978 Percentage Female, Average Entry-Level Salary, Labor-Market Index, and Human-Capital Index

Variable	<i>b</i>	<i>s.e. of b</i>	<i>beta</i>
Percentage female, 1978	1.108 ***	0.123	0.908
Entry-level salary, 1978	-0.003 +	0.002	-0.192
Labor-market index, 1978	1.897	2.140	0.101
Human-capital index, 1978	4.376 *	1.848	0.232
Constant	46.816		
$R^2 = 0.61$			
one-tailed test; 11 degrees of freedom			

NOTE: For this regression model, percentage female represents the percentage of women earning terminal degrees in each field.

+ $p < 0.10$. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.005$.

lengthy time required to earn a doctorate. Or it may be that the 1978 labor-market index did not have a stronger independent effect on the percentage of women earning doctorates ten years later because the labor-market index is highly correlated with salaries ($r = 0.769$). Yet if the labor-market index is statistically insignificant because of its high correlation with salary (salary therefore subsuming some of the variance explained by the labor-market index and vice versa), this would not alter the conclusion that earlier measures of a discipline's desirability (as measured by either salary or labor-market conditions) probably influence later representations of women.

Summary and Conclusions

This study tested the assumption that variation in average disciplinary salaries is due to differences in labor-market conditions. Findings from both cross-sectional and dynamic models show that, controlling for the effects of human-capital and productivity measures, faculty in disciplines with higher proportions of women suffer a financial penalty relative to those in disciplines where women are scarce. The negative effect of the percentage of women in academic disciplines on average entry-level salaries is nonlinear, its negative impact diminishing for disciplines with higher proportions of women. The strongest effect of percentage female on average disciplinary salary appears to occur among disciplines that have less than 15–20% women; the negative effect weakens among disciplines with greater proportions of women, although a negative effect remains. Results from the dynamic model are particularly important, because they show that the percentage of women faculty influences changes in average entry-level salaries. Fields with higher proportions of women

show the slowest salary growth over time. This model demonstrates more conclusively than cross-sectional models that labor-market conditions do not account for variation in average entry-level salaries.

The dynamic model predicting the percentage of women in academic disciplines in 1988 with earlier measures of the independent variables lends limited support to the contention that there is a two-way relationship between the percentage of women in academic disciplines and average disciplinary salaries. The effect of average 1978 entry-level salaries on the percentage of women earning PhDs in later years was only borderline in significance, perhaps due to the small number of cases in the study.

The results of this study are consistent with research on the larger labor market that documents an inverse relationship between the proportion of women in occupations and wage levels (e.g., England, 1992; Michael et al., 1989; Treiman & Hartmann, 1981). These results call into question the assumption that labor-market forces are responsible for variation in the average entry-level salaries of faculty across academic disciplines. Clearly, the time has come for closer scrutiny of academic salary-setting and the mechanisms that introduce bias into this process. This will require open communication about faculty salary-setting processes, and faculty salaries generally (discussing faculty salaries is still taboo on some campuses). Faculty organizations, collective bargaining units, and professional organizations can work to bring salary equity issues and relevant research to the attention of administrators. This seems an appropriate and important endeavor for the American Association of University Professors in consultation with comparable worth scholars.

These suggestions will no doubt be unpopular among those who benefit from current salary-setting practices. Some argue, for example, that the work of professors simply cannot be compared across disciplines (Lee et al., 1987). A basic premise of the comparable worth perspective is that the content of different jobs *can* be compared on such dimensions as skill, effort, responsibility and working conditions. Not only can we compare the work of professors across disciplines, but the reality is that administrators already do so in allocating salary monies across departments. Others argue that job evaluation systems ignore market factors (Buchanan & Tollison, 1981; Waldauer, 1984). Job evaluations can and do take market factors into account (Remick, 1984), so this claim is unfounded. However, the likelihood that bias is incorporated into market factors (e.g., nonacademic wages) points to the need to strive to develop gender-neutral job evaluation methods outside as well as within academia. Comparable worth proponents do not advocate ignoring market factors. Rather, they seek to assure that measures of the market — and of merit — do not incorporate gender bias.

APPENDIX

Correlation Matrix of Dynamic Model Variables ($N = 16$)

	1	2	3	4	5	6	7	8
1. 1988 entry-level salary	1.000							
2. 1988 percentage female	-0.730	1.000						
3. 1988 labor-market index	0.733	-0.554	1.000					
4. 1988 human-capital index	0.452	-0.469	0.425	1.000				
5. 1978 entry-level salary	0.883	-0.640	0.571	0.501	1.000			
6. 1978 percentage female	-0.683	0.943	-0.562	-0.385	-0.658	1.000		
7. 1978 labor-market index	0.767	-0.618	0.742	0.482	0.769	-0.709	1.000	
8. 1978 human-capital index	0.436	-0.455	0.435	0.969	0.500	-0.395	0.548	1.000

Notes

¹Opportunity costs are the amount of pay that a worker forgoes in accepting one job over another. An employer must meet these opportunity costs in order to attract a worker.

²See Filer (1989) for the exception. He eliminated the negative effect of percentage female on salary using 225 control variables. England (1992, p. 133) argues that Filer overpartialed.

³An alternative explanation for the relationship between sex composition and salary levels suggests that employers pay a wage premium for discriminating against women and hiring men because they must pay men more than women (Becker, 1957). This will result in higher average salaries for disciplines with higher proportions of men. I think this explanation less likely than the administrative decision-making process that I have suggested for several reasons. First, the availability of female workers varies considerably across disciplines. Yet the percentage of women earning PhDs is highly correlated with the percentage of women faculty. Overall, academic employers hire women in approximate proportion to their availability in the PhD labor pool, although individual institutions (especially elite ones) may well discriminate against women in hiring. Second, this view does not explain why the salaries of *men* who work in predominantly-female fields are lower than they should be based on the characteristics of individuals and their jobs.

⁴The correlation between OSU and CUPA salary figures is 0.930.

⁵Compared to survey respondents, nonrespondents were slightly younger, held lower rank, were more likely to hold a professional degree, were slightly less likely to be employed by institutions with graduate programs, and were less oriented toward research (Opinion Research Corporation, 1984).

⁶The only noticeable difference between respondents and nonrespondents was that the latter appeared to be slightly more teaching- than research-oriented (Roizen et al., 1978, pp. 39–40).

⁷Most faculty in drama and music do not hold the doctorate. However, measures of specific labor-market conditions for persons with master's degrees are unavailable, so I could not determine the extent to which conditions might differ for persons with a master's degree versus a doctorate in these two disciplines.

⁸McPherson notes (1985, p. 69, note 11) that humanists are least likely to work in their field of training when employed outside academia. Although there is mobility between degree field and other fields even in high-demand disciplines, for these disciplines movement tends to occur between closely related fields.

⁹The correlation between unemployment rate and percentage of workers with nonacademic jobs is only -0.197. However, omitting unemployment rate from the index reduced the alpha reliability from 0.70 to 0.59, therefore I retained the variable.

¹⁰Although years of experience is a common measure of human capital, I did not include it, because the average years of experience of faculty in various disciplines should not influence administrators' perceptions of a discipline's value independent of productivity measures.

¹¹It is important to recognize that seemingly objective measures of skill and productivity implicitly represent value judgments about what skills and characteristics merit rewards. These judgments can easily incorporate gender bias (Park, 1996; Steinberg, 1990). For example, if quantitative skills are valued and rewarded more highly than qualitative skills, is it because the former are intrinsically more valuable or because they tend to be more highly developed among males in our society?

¹²Heteroscedasticity is a problem common to aggregate-level data, because analytical units are often represented by averages calculated from different numbers of cases. Aggregate measures based on large numbers of cases are presumably more accurate and should therefore show less variance around true values than measures compiled from small numbers of cases (Hanushek & Jackson, 1977, pp. 142–53).

¹³I repeated the single-year analysis using average 1978–79 salary and earlier measures of the independent variables. I found that the percentage of women in academic disciplines exerted a significant negative, nonlinear effect on average 1978–79 entry-level disciplinary salary ($b = -1199.47$; $p < 0.05$). As for the 1988–89 analysis, the labor-market index also significantly influenced 1978–79 salaries ($b = 574.33$; $p < 0.05$), but the human-capital index did not.

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Predicting Student Loan Defaults

Introduction

About one-fifth of all undergraduates borrow in the federally insured Stafford student loan program, previously known as the Guaranteed Student Loan (GSL) Program (Korb et al., 1988). Currently, qualified undergraduates may borrow up to \$2625 as freshmen, \$3500 as sophomores, and \$5500 each year thereafter, without collateral or previous credit experience. Self-supporting students (whose parental data is not required on the federal financial aid application) may borrow an additional \$4000 to \$5000 each year in the Unsubsidized Stafford loan program. Banks, savings and loan associations, and credit unions provide funds insured by agencies of the federal government after participating postsecondary institutions certify student borrowers' financial need and academic eligibility. Student borrowers are usually not obligated to make payments upon principal or interest during periods of enrollment, while lenders are simultaneously guaranteed a revenue stream of interest payments by the government as well as insurance against later default (U.S. Department of Education, 1990a, 1990b).

Failures to repay student loans result in enormous costs to the federal government, which covers the losses to lenders. The American experience is severe; Johnstone (1987) observes that Sweden has a student loan default rate only one-fifth of that of the United States. In the 1990s

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defaulted student loans will cost the federal government at least two to three billion dollars each year (U.S. Department of Education, no date). These sums easily surpass the annual amounts spent on any of the divisions within the National Institutes of Health as well as virtually every initiative funded under the separate titles of the Higher Education Act, including graduate support and institutional assistance. In the early 1990s the problem was viewed as reaching crisis proportions, for at that time defaults were the fastest-growing line item in the budget of the Department of Education (U.S. Department of Education, 1990b). The growing cost of defaulted loans results in large part from the burgeoning use of student loans throughout higher education. In the decade of the 1980s, borrowing volume in federally-backed education loans grew 40% in inflation-adjusted dollars, but from 1992–93 to 1994–95, federal loan program volume grew an astonishing 50% (College Entrance Examination Board, 1995). Currently, more than half of all full-time recipients of student aid use student loans, and more than a third of all part-time recipients also do (Lee & Clery, 1995).

Default rates have tended to increase over time (Harrison, 1995). Even if temporary declines occur, large increases in student borrowing mean that the federal government's costs to repay defaulted loans will increase in the future. Coincidental to the rapid growth in student borrowing is news in the business press that recent large increases in consumer credit use are being accompanied by surges in credit card delinquency rates and personal bankruptcy filings (Koretz, 1995). Escalating student loan default costs have followed closely on the heels of the huge losses in government-backed savings and loan associations in the 1980s (Eichler, 1989; White, 1991) and of current policy debates about potential costs savings to achieve through student loan program restructuring (Burd, 1995).

In this context the federal government places great emphasis on default prevention. Because it can do relatively little to influence directly the repayment behavior of current and potential student borrowers, federal intervention is largely directed toward institutions and, to a lesser degree, lenders and loan insurance agencies. For institutions whose former students exhibit relatively high rates of default on their student loans, federal policy requires multifaceted plans that address issues of institutional marketing, quality, refunds, graduate job placement, and borrower counseling (U.S. Department of Education, 1990b). For institutions with unacceptably high default rates, federal policy requires the termination of institutions from federal student aid programs. Shortly after Congress reauthorized the federal student aid programs in 1992, reports began to appear about hundreds of institutions that were to lose el-

igibility for federal student aid programs due to the high default rates caused by their former students (Zook, 1993). For institutions with relatively high default rates, the effects of exclusion from federal student financial aid programs can be devastating upon revenues and enrollments.

Theoretical Perspectives

Efforts to understand and to minimize student loan defaults have primarily drawn upon theoretical perspectives from three disciplines: economics, sociology, and psychology. Here begins a brief exploration of what each discipline has contributed.

Economic Perspectives

Two perspectives derive from the tradition of economics. *Human capital theory* posits that the student's investment in higher education is made with the expectation that the future financial returns from acquired skills and increased income will outweigh the current costs, both direct and indirect (Becker, 1993). Public subsidies behind federal student loans reduce risks to both borrowers and lenders as a means of stimulating enrollments from students having sufficient academic ability but insufficient funds. The higher average incomes of college graduates compared to non-graduates may provide for servicing loan payments and higher net income tax revenues, thus benefitting both students and the public alike (Smart, 1988; St. John & Masten, 1990). Yet, though human capital theory is a useful framework for understanding students' decisions to attend college with the decisions to borrow as its corollary, it is less useful for understanding borrowers' decisions to repay or to default. To invest in college education is a major decision that entails substantial direct and indirect costs, and college graduation is a publicly acknowledged accomplishment. By contrast, whereas loan repayers build good credit histories and defaulters endure collections efforts, the repayment or default on student loans is primarily a private event that has not nearly the public recognition or economic impact of the college experience itself.

An additional perspective from economics stems from the theory of *ability to pay*, which has implications for the processes of both making and collecting loans. First, ability to pay theory rationalizes the distribution of subsidies among all potential borrowers by targeting the greatest funding for students with the least available income. Consequently, students with the greatest financial need have traditionally been offered the largest loans. Next, ability to pay theory attempts to explain borrower behavior by prioritizing consumption categories. After college and during the loan repayment period, student borrowers who are unable to pro-

vide for themselves much beyond a minimal living level must either turn to family or friends for financial help or risk defaulting upon their loans. The theory thus posits that first priority is given to essential expenses related to subsistence, mandatory taxes, and medical expenses, leaving a residual "discretionary income" for additional costs related to education, recreation, savings, or other financial obligations (College Scholarship Service, 1983a, 1983b). During the proscribed loan repayment period, if borrowers lack the resources necessary to service the loan debt, then the likelihood of default is high. However, the limitations of this perspective become apparent not at low levels of income but at high levels. Borrowers who may readily repay their loans nonetheless choose not to do so. Indeed, recurrent stories of wealthy physicians defaulting on their student loans have tarnished the integrity of government loan program operations for many years.

Sociological Perspectives

Both status attainment and social integration models have had great influence upon higher education research, particularly in the areas of educational attainment and of student departure. Status attainment models were introduced in the seminal work of Blau and Duncan (1967) to explain the role of educational experience in social mobility, and derivatives of these models figure prominently in college choice and matriculation research. Tinto (1975, 1987) adopted the sociological perspective of Durkheim's (1951) investigations of suicide in order to advance the understanding of the causes and cures for college student attrition.

The sociological tradition in higher education research has provided *student/institution fit* models stemming from college outcome studies and, in particular, from retention studies (Bean, 1980; Cabrera, Nora, & Casteneda, 1992). Critical to student/institution fit models are measures of academic and social integration of students among their peers and the faculty. Student/institution fit models may be regarded as derivatives of person/environment interaction theories (Baird, 1988; Walsh, 1973), which posit that the physical and social characteristics of one's surroundings exert influence upon one's behavior. An important corollary to such theories is that when individual interests, values, and behaviors coincide with those manifest in surrounding contexts, those individuals show longer sustained interaction and experience greater satisfaction.

Another approach with sociological origins is the *structural/functional* theoretical perspective. Institutional mission, size, and environmental factors may influence the values and behaviors of its members or inhabitants (Hall, 1991). For example, campus crime is correlated with organizational dimensions (Volkwein, Szelest, & Lizotte, 1993).

Curiously, though the failures of a small segment of borrowers to repay their loans after making promises to do so (and despite frequent reminders and escalated warnings) are acts of deviance, no default research has drawn upon sociological *theories of deviance*. At least two other lines of inquiry in higher education suggest some potential value to this approach. Braxton (1993) has shown the utility of anomie (alienation) theory (Merton, 1968) in understanding scientific misconduct, while Michaels and Miethe (1989) find that sociologically based theories of deterrence and of social bonding contribute to understanding student academic cheating.

Psychological Perspectives

The third discipline contributing theoretical perspectives is that of psychology. Because efforts to prevent defaults depend upon the degree to which the borrower's future behavior can be influenced, psychological *theories of attitude formation* and the effects of attitudes upon subsequent behavior become relevant here. Interventions to trigger attitude-behavior effects might also be described as the counseling perspective. In the context of student borrowing and default prevention, the influence of informants to the financing process — both friends and professionals — is stressed insofar as they provide information about the availability of loans and their repayment requirements. As a normative peer group, they may shape borrowers' beliefs, feelings, and behavioral tendencies toward the loans. As in other decision-making contexts, credibility of informants and the extent of information are formative influences upon subsequent attitudes and behaviors (Davidson et al., 1985; McGuire, 1985). Because financing is an integral part of the college experience (Cabrera, Nora, & Casteneda, 1992), attitudes toward student loans and later repayment behavior may be taken as representative of their satisfaction (or lack thereof) with the college experience after their departure. Attitudinal factors related to loan defaults remain a major area for further investigation, and at least one source predicts, "Willingness to repay is even more important than ability to repay" (Orr, 1987).

Nonetheless, purely psychological perspectives also have inherent limitations. Psychological constructs are notoriously slippery and the theories underlying them too often support circular reasoning. Few social or educational surveys include the complete battery of items needed to replicate previously standardized measures, thus resulting in numerous proxies for common constructs. Moreover, predispositions toward certain behaviors may be of little consequence when the person has neither resources nor the capability for action. In general, the efforts to link empirically broad personality traits and attitudes to specific behaviors

have often resulted in failure, though multidimensional constructs show reasonably strong predictive validity upon subsequent behavior (Ajzen, 1988).

Federal Policy and Integrative Perspectives

Federal policies related to default prevention rely heavily upon the theoretical perspective of counseling and attitude change, because the federal policy that holds institutions responsible for the repayment behavior of former students is fair and reasonable only if schools can effectively influence that behavior. These issues were clearly identified by the U.S. Secretary of Education when answering objections to its system of holding institutions accountable for loan defaults, even those schools that serve student populations with a high risk of default. Speaking of the need-based Perkins loan program, the secretary answered the objections this way:

The Secretary has observed widely differing default rates among similar types of institutions serving student populations with similar characteristics, and believes that institutional default rates, although related to income levels, are more related to other factors clearly within the control of the institution. The latter include not only the quality of the institution's collection activity, but also the manner and type of loan counseling given student borrowers and the degree of student satisfaction with the quality of the education provided by the school. (*Federal Register*, August 6, 1986, p. 21832).

Few of the recently published student loan default studies have attempted to integrate these multiple theoretical perspectives. In fact, most studies view loan default from a single perspective. Some empirical work includes only counseling-related variables but no background or institutional characteristics (Butler, 1993; Lein, Richards, & Webster, 1993), others include institutional variables with no student- or counseling-related characteristics (Harrison, 1995; Merisotis, 1988), and still others focus upon student variables to the exclusion of institutional or decision-related characteristics (Gray, 1985; Myers & Siera, 1980; Stockham & Hesseldenz, 1979). A detailed survey of the student loan default literature is now in order.

Prior Research

There have been many descriptive studies of student repayment behavior since the inception of federal student lending programs (Beanblossom & Rodriguez, 1989; Cross & Olinsky, 1984; Lee, 1982; Pedalino et al., 1992). Although the descriptive studies compare repayment

behaviors across many variables each considered independently, such studies do not provide a means for estimating the likelihood of future occurrences of repayment or default. By contrast, only a handful of studies have been published using inferential statistics for predicting student repayment. The goal of predictive studies is not only to establish equations to estimate probabilities, but also to consider the role of all predictor variables simultaneously so that their relative influences can also be estimated (Hauptman, 1977).

Some contrasting uses of terminology regarding "default" may be observed in earlier studies. Default in the Stafford/GSL loan program is defined by statute as the case in which a borrower has made no payment in more than 180 days for a loan that is billed monthly (or more than 240 days for loans billed quarterly). However, not all studies define default identically. Some studies redefine default as delinquency of twelve or more consecutive months during the repayment period (Hesseldenz & Stockham, 1982; Stockham & Hesseldenz, 1979). Other studies have used stricter definitions; for example, Gray (1985) used a 120-day threshold for default.

Other variations within default studies may be noted. Delinquency on payments precedes default, and some studies concern themselves only with degrees of delinquency (Bergen, Bergen, & Miller, 1972), even as little as a single instance within a twelve-month period (Butler, 1993). Also, one finds several student repayment studies for the Federal Perkins student loan program (formerly National Direct Student Loans or NDSL), a precursor of Stafford/GSL loans (Bergen, Bergen, & Miller, 1972; Butler, 1993; Emmert, 1978; Hesseldenz & Stockham, 1982; Stockham & Hesseldenz, 1979). Gray's study (1985) used the Federal Insured Student Loan (FISL) Program, a school-based version of GSL. Given the relationship of delinquency to default and the structural similarity of borrowing provisions under Perkins/NDSL, FISL, and Stafford/GSL loans, all such studies are included below in this research review (U.S. Department of Education, 1990a).

Economic Evidence

Examining the results of prior research from the conceptual frameworks of economics has shown only modest usefulness. The weakness of the human capital and ability-to-pay theoretical perspectives becomes evident in a number of studies in which borrower income and asset measures fail to add measurably to explained variance. Some multivariate studies show that postcollege incomes affect defaults (Ryan, 1993; Volkwein and Szelest, 1995), but others do not (Hesseldenz & Stockham, 1982; Spencer, 1974). Although recent studies have not included vari-

ables to account for family wealth, early studies have all tended to show default to be unrelated to various forms of assets or liabilities such as home/auto ownership or debt, bank accounts, or other debts including education loans (Dyl & McGann, 1977; Gray, 1985; Spencer, 1974; Stockham & Hesseldenz, 1979).

Sociological Evidence

Every predictive study to date which includes family background variables has found one or more of them to be significantly associated with student loan defaults. Effects are frequently observed for two social background variables: race and socioeconomic status. Seven studies (Butler, 1993; Dynarski, 1994; Flint, 1994; Gray, 1985; Knapp & Seaks, 1992; Volkwein & Szelest, 1995; Wilms, Moore, & Bolus, 1987), which include race as a predictor, find that blacks have a significantly higher probability of default, while one (Greene, 1989) found no significant effect from race. Volkwein and associates (1995) show that only small differences in default rates remain after disaggregating on race by marital status and number of dependents, which is important evidence for the view that the borrower's postcollege situation determines default. However, the general effects upon default from marital status and the number of dependents are mixed across other studies, sometimes being influential (Dynarski, 1994; Myers & Siera, 1980), sometimes not (Gray, 1985; Spencer, 1992; Stockham & Hesseldenz, 1979).

Other common demographic variables also draw mixed results. Precollege total family income (including parental income) has typically been used as a measure of the socioeconomic status of borrowers. Six studies (Dynarski, 1994; Gray, 1985; Knapp & Seaks, 1992; Myers & Siera, 1980; Pattillo & Wiant, 1977; Wilms, Moore & Bolus, 1987) find lower levels of family income to be positively related to default, whereas three others (Flint, 1994; Greene, 1989; Volkwein & Szelest, 1995) find no such effect. Measures of parental educational and occupational status attainment are usually not influential. With few exceptions (Flint, 1994; Spencer, 1974) gender is not usually influential in predicting default (Knapp & Seaks, 1992; Myers & Siera, 1980; Volkwein & Szelest, 1995; Wilms, Moore, & Bolus, 1987). Depending upon the sample, age may be a factor (Pattillo & Wiant, 1977; Ryan, 1993) or not (Dyl & McGann, 1977; Knapp & Seaks, 1992; Spencer, 1974; Stockham & Hesseldenz, 1979).

Psychological Evidence

Empirical support for psychological perspectives upon default is strong, though most of the evidence indicates the relevance of individual

differences rather than attitudinal variables. A large body of research indicates that variables related to individual achievement, identity, and personality are strong predictors of default. With one exception (Greene, 1989), borrowers' cumulative grade point average (GPA) is a reliable predictor of default, such that higher GPAs decrease the risk of default (Bergen, Bergen, & Miller, 1972; Dyl & McGann, 1977; Flint, 1994; Gray, 1985; Myers & Siera, 1980; Stockham & Hesseldenz, 1979; Volkwein & Szelest, 1995). Similarly, graduation bodes well for the likelihood of repayment (Dynarski, 1994; Greene, 1989; Knapp & Seaks, 1992; Pattillo & Wiant, 1972; Wilms, Moore, & Bolus, 1987), though other studies discount this factor (Flint, 1994; Myers & Siera, 1980). Also, some studies show that majoring in more academically rigorous disciplines related to science and technology (such as engineering) decreases the probability of default (Dyl & McGann, 1977; Myers & Siera, 1980; Stockham & Hesseldenz, 1979; Volkwein & Szelest, 1995).

No multivariate study of default has developed stronger predictive results than that of Stockham and Hesseldenz (1979). In that study, the authors found personality variables to be largely responsible for correctly predicting repayment (91.5%) and default (94.5%). Despite these results, which the authors appropriately describe as astounding, no other study has yet replicated their findings, and few other studies exist that relate personality variables to credit use of any kind in any of the social science literature (Krause & Williams, 1971; Schaninger, 1976). Also missing in the literature are studies that assess the effectiveness in preventing default by tailoring different types of loan counseling messages to personality types.

The research of Stockham and Hesseldenz (1979) has another distinct and valuable feature: it is the only published study to include an academic ability measure (ACT composite score) as well as an academic performance measure, such as high-school or college GPA. This routine but surprising omission among the many other published default studies to date indicates a serious limitation in nearly every default study to date, because it is widely recognized that academic ability makes a significant independent contribution to both college choice and college outcomes (Hearn, 1984, 1988; Pascarella & Terenzini, 1991; Zemsky & Oedel, 1983).

Multivariate, Multi-institutional Studies

The crucial policy question debated about defaults is the relative influence of student and institutional characteristics. A search through several annotated bibliographies on student financial aid research and policy (American College Testing Program, 1974; Davis & Van Dusen,

1978; NASFAA, 1987, 1988) and other sources reveals few studies of student loan default that are both multi-institutional and multivariate in nature. A California study (Wilms, Moore, & Bolus, 1987) is limited to 3155 borrowers from 93 community colleges and 140 proprietary schools, all chosen because of their high institutional default rates. A Texas study (Lein, Richards, & Webster, 1993) used a sample of 50 state technical institute students and 50 proprietary school students in an unspecified number of schools. Knapp and Seaks (1992) studied defaults among 1834 dependent borrowers at 26 public and private 2-year and 4-year colleges in Pennsylvania. By contrast, most other published predictive studies of student loan default typically involve borrowers from one campus within a single state system, such as the universities in Missouri (Gray, 1985), North Carolina (Greene, 1989), Kentucky (Hesseldenz & Stockham, 1982), and New Mexico (Myers & Siera, 1980), to name a few.

The most recent and comprehensive studies of student loan default use data from the Student Loan Recipient Survey (SLRS) of the National Postsecondary Student Aid Study of 1987 (NPSAS:87). Using the SLRS, Dynarski (1994) primarily studied individual characteristics useful to predicting default, including only sector type as an institutional variable, whereas Volkwein and Szelest (1995) expanded the model to include an array of institutional variables in his analysis. However, a number of limitations in those studies present conceptual difficulties for interpreting the reported effects. Furthermore, these SLRS studies also bypass intriguing questions about default and repayment behavior.

First, these SLRS studies include many students who transferred between undergraduate institutions. About 60% of the SLRS respondents listed more than one institution in their educational history and about 25% listed three or more schools (Knight et al., 1988). No sound theoretical framework exists for partitioning by institution the effects of the undergraduate experiences of students who, for example, might have transferred from trade schools or community colleges to four-year colleges or universities, or vice versa.

Second, these studies include both graduate and undergraduate degree-holders. Approximately 17% of SLRS respondents claimed to hold a master's, doctoral, or professional degree (Knight et al., 1988). Although borrowing levels and default rates among graduate and professional school students are important areas, interinstitutional comparisons are difficult to interpret when mixing both undergraduate and graduate educational experiences in the same analysis. Additionally, though it has been noted that about 17% of SLRS respondents claimed to have completed graduate-level work, less than 2% of the SLRS data

records have multiple academic transcripts. Thus, care must be taken to insure that the transcript data are matched to the appropriate institution and level for students having both a graduate and undergraduate history. Given the differences in difficulty and scope of the academic work between these levels, the use of grade point averages (GPA) taken from a mixture of graduate and undergraduate transcripts is of questionable utility as a predictive variable.

Finally, the large number of cases in the SLRS in which data are missing raises vexing problems for analysis. More than one-third of all SLRS respondents were unable or unwilling to estimate their parents' total yearly gross income at the time the student entered postsecondary education. Although this kind of background variable is frequently included in default studies and is alleged to influence disposition to repay (Gray, 1985; Myers & Siera, 1980; Patillo & Wiant, 1972; Wilms, Moore, & Bolus, 1987), large proportions of missing data introduce uncertainty into the interpretation of the data and the results of its analysis. Some analysts have attempted to remedy this problem by imputing data (Volkwein & Szelest, 1995).

Purpose of the Current Study

Due to its large scale, its multicollage sample, and its extensive inquiry into students' backgrounds, academic experiences, work histories, and borrowing data, the SLRS provides a unique data source for multivariate explorations of the many potential influences upon loan repayment behavior. In particular, it provides an opportunity to assess the impact of loan counseling through its accumulation of answers by students to questions about the sources from which students first learned about their loans and the timing and sources of information by which repayment information was received. The kinds of questions such an analysis might answer include: Does personal advice (from friends, relatives, high-school counselors) favorably influence repayment compared to institutional contact (lenders, schools, or the media)? Does counseling at the time of loan origination have greater impact than that done just prior to repayment? Is repayment counseling more effective when provided by schools than by banks? Is the experience of having multiple lenders an indicator of potential program complexity which might cause borrower confusion leading to default?

The explosive growth of student borrowing and the job pressures upon young graduates has also fueled speculation that large debts distort curricular choices and early career decisions. Except for a study by St. John (1994), most of the evidence in this area remains anecdotal

(Kramer & Van Dusen, 1986; Marchese, 1986; Zook, 1994). To date only one small study has investigated whether instances of mismatches between students' undergraduate major and their postgraduate jobs constitute a factor influencing repayment behavior (Lein, Richards, & Webster, 1993). In the SLRS about a quarter of those students who reported having been in default on their first loan claimed that dissatisfaction with the education program for which the loan was obtained was an important reason they defaulted (U.S. Department of Education, 1990a).

The current study attempts to replicate and extend the findings of the earlier SLRS studies by addressing some of the aforementioned limitations. Similar to Volkwein and Szelest (1995), this study uses measures representing several theoretical perspectives from multiple disciplines. In particular, this research further investigates the default problem by incorporating variables related to a counseling perspective, such as the timing and sources of repayment information, as well as a measure indicating the congruence between students' undergraduate majors and postgraduate jobs (Holland, 1985; Smart, 1989).

Method

Sample

The Student Loan Recipient Survey (SLRS) of the 1987 National Postsecondary Study Aid Study (NPSAS:87) was used in this study. The SLRS was performed from November 1987 to April 1988 and was first made available to data analysts in 1989. This portion of NPSAS:87 is sometimes referred to as the "out-of-school" component of NPSAS, to distinguish it from the study of enrolled students and their parents. The SLRS surveyed 11,847 former students of 1,412 postsecondary institutions who left school between 1976 and 1985. All of these sampled students had borrowed in the GSL loan program. With a response rate just below 80%, completed student questionnaires were obtained for 8,223 borrowers. Additionally, well over 14,000 academic transcripts were requested from the attended institutions, so that detailed academic information could be encoded into record files and linked to the former student borrowers (Knight et al., 1988, 1989).

Table 1 shows the steps by which records were selected based on SLRS variable names. SLRS records were thoroughly scanned to insure that only undergraduate records were obtained from students whose list of institutions might include graduate schools attended. Each institution was coded into the SLRS not by name but by federal institutional code numbers. Because many institutions have (or had) multiple federal code numbers, multiple listings were recoded to a single number per institu-

TABLE 1
Record Loss During Sample Selection

Total borrower surveys in the SLRS	8,223
Undergraduate transcript	-4,364
Not currently attending	-182
Parental income reported	-1,355
Father's education reported	-66
Mother's education reported	-11
Father's occupation reported	-46
Mother's occupation reported	-37
Age, race, gender reported	-14
Reports valid number of dependents	-3
Reports number of lenders	-41
Institutional data matched	-138
Missing student major	-411
Missing student grade point average	-438
Total borrowers sampled from the SLRS	= 1,117

tion so that code mismatching between student survey data and academic transcript data would be eliminated. Federal institutional code number mismatches were also identified and recoded so that successful matching could be performed to the 1990-91 Institutional Characteristics (IC) data collected by the National Center for Education Statistics (NCES) through its Integrated Postsecondary Education Data Survey (IPEDS).

The final sample is comprised of 1,117 borrowers from 510 institutions, of which 296 are public, 170 are private nonprofit, and 44 are proprietary. Of these institutions, about 53% are of average selectivity in admission, while 37% are minimally or non-competitive and the remaining 10% are highly competitive. Table 2 provides further descriptive information about the borrowers and the institutions attended.

Variables

The model(s) developed assume that repayment behavior is the cumulative result of experiences before, during, and after college enrollment. The variables of interest will be grouped together into blocks representing precollege variables, college-related variables, and postcollege variables. Such groupings are standard practice in most college impact studies (Astin, 1977, 1993; Pascarella & Terenzini, 1991). Within the broad category of college-related effects, this study investigates the role of institutional characteristics, student academic variables, and loan origination and aid packaging variables. Table 2 provides descriptive characteristics based on the study's variables.

The operative assumption in stage- or step-based models is that the effects of variables may only act forward in time and cannot retroactively

TABLE 2
Descriptive Characteristics (*N* = 1,117)

Independent Variable	Frequency	Percent	Mean	<i>SD</i>
STUDENT BACKGROUND CHARACTERISTICS				
Gender:				
Males	583	52.2		
Females	534	47.8		
Race/Ethnicity:				
Black	79	7.1		
Other nonwhite	37	3.3		
White	1001	89.6		
Age			29.30	5.22
Father's education (scaled 1–11):			5.41	3.28
1 = less than high-school diploma	178	15.9		
2 = GED	22	2.0		
3 = high-school graduate	314	28.1		
4 = less than 1 yr vocational	33	3.0		
5 = 1 yr but < 2 yrs vocational	36	3.2		
6 = 2 yrs or more vocational	42	3.8		
7 = less than 2 yrs college	113	10.1		
8 = 2 or more yrs of college	56	5.0		
9 = completed college	191	17.1		
10 = master's degree/equivalent	85	7.6		
11 = PhD, M.D.	47	4.2		
Mother's education (scaled 1–11):			4.95	2.83
1 = less than high-school diploma	114	10.2		
2 = GED	16	1.4		
3 = high-school graduate	468	41.9		
4 = less than 1 yr vocational	29	2.6		
5 = 1 yr but < 2 yrs vocational	37	3.3		
6 = 2 yrs or more vocational	41	3.7		
7 = less than 2 yrs college	117	10.5		
8 = 2 or more yrs college	98	8.8		
9 = completed college	142	12.7		
10 = master's degree/equivalent	51	4.6		
11 = PhD, MD	4	0.4		
Father's occupational index (note 1)			42.43	17.55
Mother's occupational index (note 1)			40.39	8.98
Family (parental) income (scaled 1–6):			3.92	1.52
1 = \$10,999 or less	110	9.8		
2 = \$11,000 to \$16,999	124	11.1		
3 = \$17,000 to \$22,999	156	14.0		
4 = \$23,000 to \$29,999	225	20.1		
5 = \$30,000 to \$49,999	355	31.8		
6 = \$50,000 or more	147	13.2		
INSTITUTIONAL CHOICE CHARACTERISTICS (Note 2)				
Highest degree offered (scaled 1–9):			7.05	2.01
1 = certificate < 1 yr	6	0.5		
2 = certificate > 1 but < 2 yrs	5	0.4		
3 = associate degree	114	10.2		
4 = certificate > 2 but < 4 yrs	94	8.4		

TABLE 2 (Continued)

Independent Variable	Frequency	Percent	Mean	SD
5 = bachelor's degree	102	9.0		
6 = post-BS/-BA certificate	3	0.3		
7 = master's degree	213	19.1		
8 = post master's	96	8.6		
9 = doctoral degree	485	43.4		
Sector:				
Nonprofit	299	26.8		
For-profit	71	6.4		
Public	747	66.9		
Denominational affiliation:				
Nonaffiliated	979	87.6		
Church-affiliated	138	12.4		
Selectivity in admission (note 3):			2.62	0.96
1 = noncompetitive	220	19.7		
2 = minimally competitive	130	11.6		
3 = moderately competitive	627	56.1		
4 = very difficult	126	11.3		
5 = most difficult	14	1.3		
Enrollment (fall 1990)			12702.80	12523.78
STUDENT ACADEMIC CHARACTERISTICS				
Status of student major (note 1):			60.95	16.84
Cumulative grade point average			2.79	0.67
Total terms enrolled			9.44	4.52
Earned credential:				
Yes	981	87.8		
No	136	12.2		
LOAN COUNSELING AND AWARD PACKAGING CHARACTERISTICS				
Source of loan data:				
Lender (1 = yes)			0.31	0.46
Institution (1 = yes)			0.47	0.49
Family relative (1 = yes)			0.26	0.43
Aid packages contained:				
Grants (1 = yes)			0.70	1.20
Loans (1 = yes)			0.29	0.87
Work study (1 = yes)			0.41	0.98
Other jobs (1 = yes)			1.31	1.39
Other awards (1 = yes)			1.01	1.32
Amount borrowed			4690.57	3296.54
Number of loans			2.10	1.21
EXIT COUNSELING CHARACTERISTICS				
Counseling source by timing:				
None received (1 = yes)			0.03	0.17
Before/school (1 = yes)			0.21	0.41
Before/lender (1 = yes)			0.53	0.49
While enrolled (1 = yes)			0.10	0.30
After/school (1 = yes)			0.08	0.27
After/lender (1 = yes)			0.30	0.46

TABLE 2 (Continued)

Independent Variable	Frequency	Percent	Mean	SD
Extent paid by others			5.50	1.37
Number of others			0.15	0.37
Number of lenders			1.10	0.34
POINT-OF-SURVEY VARIABLES				
Disposable income (note 4)			3922.70	13136.34
Congruence (note 5)			2.83	1.13
Future aspiration (scaled 0–6)			3.53	1.12
0 = no credential	30	2.7		
1 = certificate < 2 yrs	85	7.6		
2 = diploma, 2 < 4 yrs	43	3.8		
3 = associate's degree	143	12.8		
4 = bachelor's degree	747	66.9		
5 = master's degree	59	5.3		
6 = doctoral/professional	10	0.9		
Marital status:				
Married	530	47.4		
Separated	21	1.9		
Divorced	62	5.6		
Widowed	3	0.3		
Single	501	44.9		
Number of dependents				
0	641	57.4		
1	211	18.9		
2	115	10.3		
3	90	8.1		
4	41	3.7		
5 or more	19	1.7		

NOTES:

1. From SLRS data file both father's and mother's occupational listings were encoded into a numerical status index developed by Featherman and Stevens (1982).
2. Similar to Volkwein and Szelest (1995), the 1990–91 Institutional Characteristics data file of IPEDS was used for matching to school codes. This data file is the earliest available to the year of the SLRS study.
3. Selectivity categories and ratings assigned are found in Healy, Koether, and Lefferts (1990).
4. Disposable income was calculated from SLRS reported income and expenditures as follows: student (and spouse, if any) 1986 taxable and nontaxable income, minus calculated 1986 federal income tax based upon reported marital status and number of dependents, minus annualized housing costs, minus annualized living costs, minus annualized payments on other (non-GSL) loans.
5. Congruence between the borrower's undergraduate major and most recently reported job was based on the theory of personality and careers of Holland (1985) using the technique reported in Smart (1989), where 1 = least congruence and 4 = most congruence.

affect the past. For example, one's choice of academic major in college may influence subsequent postcollege earnings, but not vice versa. Additionally, step-based models permit interpretations of the net effects of adding variables to models when the effects of earlier variables are already known. For example, loan exit interviews may appear significant in isolation but less so when controlling for the effects of the backgrounds of the borrowers and the kinds of institutions which they attend. A final benefit from step-based models is that different predictive equations can

be developed for different points in time. The most useful points of prediction of repayment behavior may be at loan origination and during the postenrollment grace period, whenever contact with the borrower is likely to be highest. However, predictive equations for earlier or later points of time may have important implications for loan policy and practice.

Student background characteristics. The first block of variables entered into the model are student background characteristics. These variables are the borrowers' precollege characteristics; they represent the variety of personal and social circumstances students present upon entry to college and are therefore not amenable to institutional control. The variables used in this analysis include those that have been common in the default research cited above and for which reported findings show the variable to be a statistically significant predictor: gender (Flint, 1994; Spencer, 1971); race (Butler, 1993; Dynarski, 1994; Flint, 1994; Gray, 1985; Knapp & Seaks, 1992; Myers & Siera, 1980; Volkwein & Szelest, 1995; Volkwein et al., 1995; Wilms, Moore, & Bolus, 1987); age (Pattillo & Wiant, 1972; Ryan, 1993); parental educational attainment (Ryan, 1993); and family income (Dynarski, 1994; Gray, 1985; Knapp & Seaks, 1992; Myers & Siera, 1980; Pattillo & Wiant, 1972; Wilms, Moore, & Bolus, 1987). Because the SLRS obtained parental occupation data as well, these data were encoded into an index for socioeconomic status of each parent's occupation (Featherman & Stevens, 1982). The rationale for controlling for parental occupation is that the occupational standing of parents may further influence the values and behavior acquired by the student, independent of the effects from other family background measures.

Institutional choice characteristics. The second block of variables entered into the model are some institutional characteristics common to many research models from the student college choice literature (Hossler, Braxton, & Coopersmith, 1989; Litten, 1991; Paulsen, 1990). The variables in this study include the highest degree level offered at the attended institution (Volkwein & Szelest, 1995) and institutional sector (Dynarski, 1994; Volkwein & Szelest, 1995; Wilms, Moore, & Bolus, 1987).

Consistent with the person/environment interactionism, other institutional characteristics might also influence repayment behavior. Institutional religious affiliation has been shown to influence student destinations (Maguire & Lay, 1981; Welki & Navratil, 1987). Sectarian colleges are generally populated by students with a conservative orientation and may be more likely to emphasize students' moral obligations (Astin, 1977). Ryan (1993) found that avoidance of default is positively associated with borrowers who claim to follow a religion, so an institutional variable is entered which controls for students who may have cho-

sen a church-related college. Also, institutional size may have negative influences on various measures of student satisfaction as well as important student development outcomes such as grade point average and degree aspirations (Astin, 1993); because student satisfaction may influence default, total institutional enrollment will be entered within this block of variables. Finally, institutional selectivity (the degree of difficulty undergraduates face in obtaining admission) has significant positive effects on many measures of student satisfaction (Astin, 1992), therefore a selectivity index for each college was entered using data reported in Healy, Koether, and Lefferts (1990).

Student academic characteristics. The third block of variables comprise indicators of the student's academic experiences at the undergraduate level. Whereas the block of institutional choice variables describes the chosen contexts for the students' experiences, the block of student academic variables captures some aspects of their individual performances within those contexts. Again, predictors were chosen which previously empirical research has shown to influence defaults: the socioeconomic status of students' chosen program or major field (Dyl & McGann, 1977; Myers & Siera, 1980); the number of academic terms completed (Butler, 1993; Gray, 1985; Myers & Siera, 1980; Spencer, 1992); cumulative grade point average (Bergen, Bergen, & Miller, 1972; Dyl & McGann, 1977; Flint, 1994; Myers & Siera, 1980; Stockham & Hesseldenz, 1979; Volkwein & Szelest, 1995); and whether or not the student earned an academic credential (Greene, 1989; Knapp & Seaks, 1992; Wilms, Moore, & Bolus, 1987).

Loan origination, counseling, and award-packaging variables. The fourth block of variables comprises indicators that signify the timing, types, and sources of information about GSL loans. Loans are not obtained in isolation from other awards. Aid administrators combine grants, work, and loan awards into "packages," and increasingly college aid administrators are concerned that a correct combination of award types work to reinforce rather than negate the policy goals of access, choice, and persistence (Klein et al., 1995). Thus, variables are included in this model which signify the number of times other grants, loans, work, or miscellaneous awards were simultaneously awarded with the GSL loans. The numbers of separate GSL loans and the total borrowed are included to assess the effects of the size of students' repayment burdens. Furthermore, the counseling perspective on student borrowing emphasizes the role of information providers on subsequent behavior and advocates full disclosure at the outset of borrowing through loan "entrance" interviews (Dennis, 1983; McDougal, 1983; Popik et al., 1986). Empirical research provides a basis for including such variables. Sources of information about loans have been shown to influence the

likelihood of default (Lein, Richards, & Webster, 1993), as have the kinds of awards within the financial aid package (Greene, 1989; Ryan, 1993), and the number of loans and total amount borrowed (Dyl & McGann, 1977; Gray, 1985; Myers & Siera, 1980; Spencer, 1974).

About 10% of all SLRS respondents claimed to have two or more lenders for their GSL loans. Problems related to default have frequently been attributed to the complexity inherent in the GSL program, including the burden on students who may or may not have combined multiple loans originated by several lenders backed by any one of dozens of loan insurance agencies (Eglin, 1993). When serviced separately, loans made by two separate lenders effectively doubles the minimum monthly payment required of borrowers during repayment, increasing the economic burden and potentially increasing the risk of default. More than a third of the students who reported defaulting on their first GSL claimed that confusion about the repayment process was an important reason for the default (U.S. Department of Education, 1990b). For these reasons, the number of separate lenders used by borrowers over the course of their academic careers is included in the analysis.

Exit counseling and end-of-grace period variables. Because student borrowers typically do not make payments on their loans while still enrolled, the federal government places great emphasis on loan "exit" counseling provided by schools to remind departing students of their imminent financial obligations under the terms of the promissory notes. In addition, lenders themselves are required by federal rules to exercise due diligence in the collection of student loans, including several contacts with student borrowers just prior to the onset of repayment. The fifth block of variables in this study assesses whether the sources and timing of loan repayment information — from schools or lenders, before, during, or after enrollment — influence repayments, net of other factors. Additionally, the study includes variables for the number of other persons from whom the student expected to receive help in repaying the loan and the percent of the total borrowed they were expected to repay.

Previous research at single institutions demonstrates the relevance of counseling variables in predicting repayment behavior. Loan repayment is positively associated with borrowers' understanding of loan obligations, knowing a borrower's rights and responsibilities under the terms of the loan, and avoidance of default status by use of deferment provisions (Ryan, 1993). Default is positively associated with lack of awareness of deferment provisions (Lein, Richards, & Webster, 1993). The inability of the institution to perform an exit interview is positively associated with having at least one delinquent loan payment within the first year after leaving college (Butler, 1993).

Researchers have frequently speculated that family wealth may be an unmeasured influence upon proper student loan repayment (Knapp & Seaks, 1992; Volkwein & Szelest, 1995; Wilms, Moore, & Bolus, 1987). Some evidence does in fact indicate that whether or not families have bank or savings accounts does influence default (Pattillo & Wiant, 1972). Although the SLRS survey does not inquire directly about family wealth or parental assets, a variable is included based upon an item borrowers completed indicating the number of persons and the percent of help from others that the student expected to have in repaying the loan.

Point-of-survey variables. The final block of variables in this model includes contemporaneous circumstances that may influence repayment or default status, as measured at the time of the SLRS survey. They include measures of students' disposable incomes (Ryan, 1993; Spencer, 1974), congruence between students' undergraduate academic major and the latest job held (Lein, Richards, & Webster, 1993), and marital status and number of dependents (Myers & Siera, 1980; Volkwein & Szelest, 1995). Because student degree aspirations are powerful influences upon subsequent enrollment (St. John, 1991), it was hypothesized that borrowers who had additional enrollment plans at the time of the survey had reason to stay in repayment and avoid default not to jeopardize their future eligibility for additional loans. Therefore, the students' aspirations declared at the time of the SLRS survey was included to assess its relationship to repayment behavior.

Analysis

The prediction of default status involves a dichotomous outcome (default or repayment). The proper analytic tool for such prediction is logistic regression (Cabrera, 1994). Data were analyzed using the Statistical Package for the Social Sciences (SPSS) (Norusis, 1990). Due to the relatively large sample size, statistical probabilities above the 0.01 level are not interpreted.

Results

The overall model correctly predicts repayment status in about 87% of all cases. Though student background characteristics are strongly related to default, very little additional predictive success is contributed by any of the blocks of variables entered after student background characteristics (Table 3). The probability of default increases with the indicators for being male, black, and with increased years of age ($p < 0.001$). These effects persist across successive steps of the model during which

TABLE 3

Logistic Regression on Defaulted Loans (*N* = 1117)

	Student Background Variables	School Choice Variables	Student Academic Variables	Loan Counseling Packaging	Exit Counseling Variables	Point of Survey Variables
STUDENT BACKGROUND CHARACTERISTICS						
Gender (1 = Male)	0.578***	0.584***	0.484***	0.467***	0.462***	0.449***
Race: black (= 1)	0.851***	0.852***	0.780***	0.716***	0.767***	0.795***
Other nonwhite (= 1)	0.166	0.148	0.154	0.110	0.122	0.118
Age	1.184***	1.266***	1.480***	1.535***	1.583***	1.629***
Father's education	0.658	-0.563	-0.441	-0.269	-0.228	-0.349
Mother's education	0.456	0.412	0.429	0.314	0.256	0.267
Father's SEI	0.026	-0.047	-0.052	-0.131	-0.105	-0.078
Mother's SEI	-0.233	-0.239	-0.223	-0.110	-0.239	-0.212
Family income	-0.453	-0.303	-0.345	-0.135	-0.060	-0.093
INSTITUTIONAL CHOICE CHARACTERISTICS						
Highest degree		-0.340	0.060	0.220	0.072	0.061
Sector: nonprofit (= 1)		0.178	0.219	0.307	0.351	0.406
Proprietary (= 1)		0.141	0.262	0.275	0.283	0.346
Church-related (= 1)		-0.043	-0.028	-0.088	-0.105	-0.184
Admission selectivity		-0.561	-0.564	-0.690	-0.703	-0.805
Enrollment (fall 1990)		0.041	0.029	0.033	0.029	0.022
STUDENT ACADEMIC CHARACTERISTICS						
Status index of major			0.035	-0.025	0.000	-0.262
Cumulative GPA			-1.215***	-1.340***	-1.272***	-1.296***
Total terms enrolled			-0.220	-0.184	0.158	-0.253
Earned credential (1 = yes)			-0.253	-0.295	-0.313	-0.253
LOAN COUNSELING AND AWARD PACKAGING CHARACTERISTICS						
Source of Loan Data: Lender (1 = Yes)				-0.835***	-0.784***	-0.730***
Institution (1 = yes)				0.179	0.206	0.209
Family relative (1 = yes)				-0.334	-0.258	-0.272
Aid Packages Contained: Grants (1 = yes)				0.351	0.340	0.362
Loans (1 = yes)				-0.537	-0.438	-0.387
Work study (1 = yes)				0.000	0.002	0.362
Other jobs (1 = yes)				-0.032	-0.045	-0.010
Other awards (1 = Yes)				0.305	0.623	0.658
Amount borrowed				-0.059	-0.076	-0.096
Number of loans				-0.021	0.122	0.052
Number of lenders				0.787**	0.762**	0.769**
EXIT COUNSELING CHARACTERISTICS						
Counseling source by timing:						
None received (= 1)					0.116	0.150
Before/school (= 1)					-0.021	0.010
Before/lender (= 1)					0.336	0.351
While enrolled (= 1)					-0.130	-0.108
After/school (= 1)					0.618**	0.607*
After/lender (= 1)					0.135	0.138
Extent paid by others					-0.882	-1.265
Number of others					-1.482	-1.963

TABLE 3 (Continued)

	Student Background Variables	School Choice Variables	Student Academic Variables	Loan Counseling Packaging	Exit Counseling Variables	Point of Survey Variables
POINT OF SURVEY CHARACTERISTICS						
Disposable income						-0.094**
Congruence						-1.037***
Future aspiration						0.528
Married						0.111
Number of dependents						-0.103
Constant	-2.388**	-1.746	-0.592	-2.135	-1.412	0.006
G squared	1094.98	1086.17	1068.32	651.44	634.98	612.13
Degrees of freedom	1107	1101	1097	1086	1078	1073
P.C.P.	88.27%	87.82%	88.45%	88.90%	89.17%	88.99%
Chi square	126.33***	6.99	30.41***	39.56***	16.45	22.85***
Degrees of freedom	9	6	4	11	8	5

* = $p < 0.05$. ** = $p < 0.01$. *** = $p < 0.001$.

additional variables are added. Stated in terms of changes in probability represented by the *delta-p* statistic (Cabrera, 1994), being male increases default probability 5.8%, being black by 11.7%, and each year of age beyond 21 by 3.0%

Within the block of student academic characteristics, only cumulative grade point average is related to repayment, such that higher GPAs are associated with avoidance of default ($p < 0.001$). Regarding loan origination variables, learning of student loans from lenders is related to avoidance of default ($p < 0.001$), whereas having multiple lenders increases the risk of default ($p < 0.01$). The *delta-p* statistics on these lender-related variables are 10.5% and 11.2%, respectively.

The postcollege circumstances of borrowers include two variables related to default. Lower disposable incomes and greater incongruence between undergraduate major and current employment are risk factors for defaulted loans. Two blocks of variables make no significant contribution to the performance of the model: institutional choice and exit counseling characteristics. Thus, none of the variables within those blocks — including institutional sector, selectivity, enrollment, exit counseling sources and timing, or repayment support from others — contributes to the prediction of these default cases.

Limitations

Although the SLRS questionnaire is an especially rich source of data, many potentially important influences remain unmeasured. The first

general category of limitations relates to excluded cases and missing data. Because this sample is limited to students listing a single undergraduate institution, no controls were possible for influences upon borrowers who experienced problems relating to transfers between schools. Additionally, no controls were available for potentially important student variables such as personality factors and academic ability. Though relevant school variables are present, other institutional measures are missing, including the quality of the collection activity performed by the lenders and the state loan insurance agencies. These kinds of issues have formed part of the argument on behalf of the recent Federal Direct Loan Program (Eglin, 1993).

The second category of limitations springs from those influences that may fluctuate uniquely over extended periods of time. The federal policy environment in the period from 1976 to 1985 saw many regulatory changes to student loans, some of which must have influenced repayment behavior. Apart from effects from the era, many direct influences upon borrowers' repayment abilities remain unknown, including the frequency with which borrowers changed addresses during the repayment period, fluctuating borrower assets, local economic environmental factors, peer influences, and changes in attitudes toward the institution, the lender, and the loan itself.

Discussion

The titles of at least two published journal articles have posed the question, "Whose fault is default?" (McCormick, 1987; Wilms, Moore, & Bolus, 1987). The form of the question shows that few assume that only delinquent borrowers are to blame. Implicit in the question is a further assumption that something can be done to reduce defaults, once the symptoms are understood and suitable remedies applied. Research results show that the diagnosis is anything but simple, and the prognosis is guarded.

In this as in earlier studies, the evidence suggests that economics plays a modest role in repayment behavior. Parental income levels, numbers of friends and relatives willing to assist in making loan payments, the types of financial support during college in terms of other financial aid, the number of loans and total borrowed, and the degree of postcollege financial support show no significant association with default status. On the other hand, the borrowers' own disposable incomes do significantly influence default, such that low incomes (logically) increase risk of default. Yet, while it is true that one must have a source of income to make loan payments, if matters were that simple, borrowers with the

ability to repay would usually do so. However, many of those having the apparent ability to repay their loans choose not to do so. Thus, it seems that having an adequate disposable income is a necessary but not sufficient condition for honoring the terms of a student loan. Within this sample, 691 borrowers had disposable incomes (after taxes, room, board, and other loan payments) which for 1986 were greater than the total amounts borrowed in GSL, yet 80 (11.6%) nonetheless had defaulted. On the other hand, of 864 borrowers whose annual disposable incomes were less than the total amounts borrowed, 717 (or 83%) were in repayment at the time of the survey.

Given the weakness of the economic perspective upon this problem, do other approaches fare any better? The evidence from this study suggests that the sociological perspective is not much better than economics for understanding default. Family status indices for parental educational and occupational levels, institutional status indices for selectivity, degree levels, and sector, and student status indices ranging from academic majors to postcollege marital status all show no significant association with repayment/default. If it were the case that social institutions (such as families or colleges) helped shape repayment behavior, then one could reasonably expect the aforementioned kinds of variables to show larger effects than they do.

What emerges from this study is a portrait of psychological processes influencing repayment behavior. However, the ascendancy of individual influences over institutional ones is apparently not so much related to the counseling perspective as it is to other psychological processes. From the fifth block of variables in this study, measures that indicated counseling source by timing of counseling failed to show any significant association with repayment. Possibly, the absence of effects may stem from a restricted range of variability for these indicators. As interpreted, though, one would conclude that controlling for student background, school choice, academic and other characteristics, no apparent differences in repayment can be related to whether loan counseling was done before, during, or after enrollment by either the schools or the lenders. To view this finding in context, it should be noted that most of the borrowers in this study obtained their GSL loans under federal policies that may be characterized as ideal from a counseling perspective. In the period between 1976 and 1985, many loan insurance agencies required prospective borrowers to individually obtain loan applications from lenders and to do in-person loan counseling sessions in the lenders' offices. Under these circumstances, the solemnity of borrowing was readily conveyed, with the attendant implication that default upon a student loan could not be viewed separately from the borrower's other financial

transactions. In this setting confusion about the fact of borrowing was virtually impossible. (Perhaps for this reason, borrowers in this sample who reported hearing about GSL loans from lenders as opposed to schools or family had a significantly less likelihood of default, controlling for other influences). Only in the late 1980s, under pressure from aggressive national lenders and loan insurance agencies, did state agencies begin to relax loan origination requirements. Eventually, colleges and universities themselves distributed loan applications and conducted counseling sessions, often via the mail, making many lenders nearly invisible in their role as providers of funds. These changes certainly simplified loan origination, but also opened the door for some borrowers to deny the fact of borrowing due to the volume of documents handled between themselves and their schools. No one knows how much effectiveness may have been lost in preventing default by impressing borrowers within the offices of their lenders with the seriousness of their obligations, but the evidence here suggests that such impact may be small.

Thus, only a modest degree of evidence suggests that loan counseling makes a difference. This is not to deny that for particular borrowers or within particular colleges, the effects of loan counseling may be found to be very large and beneficial (Lein, Richards, & Webster, 1993; Ryan, 1993). This and other multivariate studies using large samples and diverse institutions have tended to find few significant effects from counseling-related variables (Dynarski, 1994; Wilms, Moore, & Bolus, 1987). The general efficacy of loan counseling in preventing defaults has yet to be proven, though testimonials to its importance are certain to continue.

If not counseling, then what psychological perspective better explains default? The salient personal characteristics related to repayment behavior in this study are gender, race, age, cumulative grade point average, disposable income, and congruence between academic major and latest job held. This collection of measures suggests that issues of personal identity and achievement figure prominently in predicting repayment or default. Given the direction of effects associated with these variables, one interpretation of this evidence is the hypothesis that expectations or feelings of personal success in life influence repayment. Lower college grades, lower disposable incomes, and less congruence between one's academic major and actual career all indicate less-successful outcomes from the college experience, all of which could make borrowers less inclined to endure the burden of loan repayment despite their promises to do so. The finding on academic major may be an especially subtle but telling indicator of the importance of psychological processes in loan repayment. By itself, the status of the academic major bears no significant relationship to repayment or default, yet the measure of congruence between the major and the last job held is significant ($p < 0.001$).

Clearly gender, race, and age are matters of identity more than achievement. Plausible hypotheses have yet to be generated to explain why these characteristics should be related to default. The accumulated evidence does not support current explanations very well; for example, some analysts take an economic perspective to relate the higher likelihood of black borrowers to default to smaller average incomes and assets (Greene, 1989; Wilms, Moore, & Bolus, 1987). However, in multivariate studies that control for income, the effect persists (Dynarski, 1994; Volkwein & Szelest, 1995). Alternatively, psychologically oriented theories of identity or achievement offer some potential in this regard, because blacks typically experience greater alienation from the dominant culture regardless of socioeconomic status (Jaynes & Williams, 1989).

The age and gender effects found in this study are atypical for default research. Compelling psychological reasons why males and older borrowers constitute a greater risk for default are not readily apparent. In this connection, though, it is worth noting that shifts in enrollments by age and gender as well as by race are issues commanding the attention of college executives and policymakers at the highest levels (Levine, 1989; Wingspread Group, 1993). As higher education officials explore the ramifications of shifting enrollment demographics, they will do well to consider not only the expected educational and financing needs of future students but also their potential vulnerability to default.

If primarily individual differences explain default, then the policy implications from such a conclusion are difficult to manage, to say the least. To exclude potential borrowers on the basis of their personal histories and dispositions would be anathema to most Americans. Because it is generally viewed that identity and personality characteristics are relatively unchanging in adulthood, denying access to a federal financial program on the basis of individual differences conflicts not only with notions of fair play but also with the American belief in the college experience as potentially life-transforming. Nonetheless, if personal predispositions are key to understanding default, then ignoring this evidence and attributing responsibility elsewhere simply redirects attention to areas where explanations prove weak and remedies ineffective.

One direct approach to the problem which focuses upon the behavior at issue is the screening of borrowers based upon credit histories. Spencer (1992) advocates use of credit history in determining loan eligibility and rebuts typical objections to their use. Because student loan programs were deliberately structured to make loan accessible to persons without prior credit histories, very few institutions have reported upon the practice of credit screening, and few would likely admit to its use. Moreover, American colleges still receive vast numbers of freshmen

who matriculate in their late teens and who have no substantive credit experience to be judged. Thus, credit history screening becomes potentially useful only for the adult student segment of higher education, a segment for which many institutions wish to remove barriers to access, not to create new ones.

A current policy issue before the federal government is whether proprietary schools deserve separate regulatory oversight, due in part to the large percentage of default loans attributed to former students enrolled in that sector of higher education (U.S. Department of Education, 1990c). What this and other analyses show is that once one statistically controls for the kinds of students who choose proprietary schools, that effect almost completely vanishes (Knapp & Seaks, 1992; Volkwein & Szelest, 1995; Wilms, Moore, & Bolus, 1987). The search for institutional correlates of default behavior has yielded very little. College quality, measured in various ways related to resources and internal processes, seems to have little direct impact upon postcollege repayments. Nonetheless, the issues of creation of postsecondary educational opportunity for high-risk students by the proprietary sector and the chances for success for vocational educational graduates are prominent within the national debate on college affordability and student loan default (Grubb, 1993; St. John et al., 1995).

College choices are quite stratified along the dimensions of academic ability and socioeconomic background (Zemsky & Oedel, 1983). Most of the differences in loan repayment results by institutional type and control are related to the kinds of students choosing to attend those institutions, not to the institutions themselves. Large numbers of low-income and minority students enroll in proprietary schools (Apling, 1993). Thus, the federal government's punitive measures against colleges with high default rates will tend to impact the kinds of schools that high-risk students are likely to choose, thereby indirectly penalizing those students. Volkwein and Szelest (1995) warn that federal pressure upon institutions to reduce their default rates may result in less postsecondary access to these at-risk groups that many institutions are trying to encourage to enroll.

Systemic and structural features of the student loan default problem will certainly merit more attention from researchers and policymakers in the future. Frequent sales of loan paper between lenders and secondary markets now characterize the Stafford/GSL program, and the new Federal Direct Loan Program is promoted as being far simpler to operate, with fewer opportunities for loans to enter default due to the confusions resulting from transfers. Some empirical support for this claim is suggested by the results of this study, because borrowers with multiple GSL lenders are more likely to enter default, controlling for other factors ($p < 0.01$). In-

deed, some reduction of student loan defaults has occurred by regulatory redefinition during the recent federal "amnesty" program for defaulted borrowers, provided as a means of converting their defaulted Stafford loans into non-defaulted Federal Direct Consolidation Loans. As researchers continue to probe the roots of repayment behavior, they will do well to include those kinds of psychological measures so often omitted, such as academic ability, personality, and attitudinal survey items. The treatment of this topic in the research literature is ready not only for new variables but also for more sophisticated models tracing direct, indirect, and conditional effects upon loan repayment behavior.

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Book Reviews

Teaching on Solid Ground: Using Scholarship To Improve Practice,
by Robert J. Menges, Maryellen Weimer, and Associates.
San Francisco: Jossey-Bass. 382+ pp. \$34.95

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Renewal of interest in the quality of teaching and learning in higher education has spawned numerous publications intended to help meet the challenge of instructional improvement. For example, we have recently witnessed the publication of estimable books on such related topics as effective teaching techniques, theory and research on teaching and learning, formative and summative evaluation of teaching, and strategies for improving instruction, as well as recent works encouraging the expansion of the scope of scholarship to include a "scholarship of teaching." *Teaching on Solid Ground* can be situated at the nexus where pedagogical techniques, approaches to assessment and evaluation, and strategies for improvement of teaching and learning are connected to their respective foundations in research on teaching and learning. The book's editors proclaim — and rightly so — that they "submit the book as an example of a 'scholarly orientation' to the improvement of instruction" (p. xii). In combination, a lucid preface and introductory chapter establish — in some detail — the rationale, goals, scope, and underlying foundation for the book. The orientation of the editors and chapter authors can be captured in several interwoven themes that are persistently addressed throughout the volume. First, the practice of instruction needs to be changed because of the changing characteristics and increasing diversity of our students, the need for greater awareness of the interconnectedness of students' lives both inside and outside the classroom, as well as the broader social and cultural context in which teaching and learning take place. Second, teaching should be more centered on students and oriented toward learning. Third, the practice of instruction should be informed by a scholarship of teaching. Fourth, the scholarship of teaching must be defined, illustrated, and exemplified by integrating research findings and drawing out their implications for the practice of instruction. This last theme is a response to an emergent call for meeting head-on the issues related to defining a "scholarship of teaching."

The book is arranged into three major parts, each of which elaborates on aspects of all four predominant themes. Part 1 includes five chapters that present research on students and learning and suggest "the new ways faculty must think about teaching" (p. 14). Separate chapters document and examine the diversity of today's college students, the nature of students' experiences inside and out-

side the classroom, the interactive effects on learning of teaching behaviors and various motivational or learning orientations of students, the nature and impact of a variety of collaborative learning arrangements, and assessments of students' involvement in the multiple contexts of college life. Taken together, these chapters establish the need for instructional change because of the challenges of student diversity, illustrate the scholarship of teaching (either through integration of research findings or careful documentation of the wisdom of practice), and draw from it clear implications for the improvement of instruction. These matters are consistently framed within a student-centered and learning-oriented perspective on teaching.

Part 2 emphasizes the role of the teacher and the nature of teaching within the context of a learning paradigm. In a student-centered learning paradigm, the teacher is a designer, facilitator, and monitor of activities and environments for learning. The five chapters in this part examine new roles for teachers in the classroom, the importance of planning for learning over the lifetime of a course, the impact on learning of various assignments completed outside of class, ways of emphasizing and enhancing students' learning by collecting and responding to feedback, and theory and research on the learning processes of college students. How the four predominant themes of the book are addressed in Part 2 is well illustrated in the first and last chapters. In Chapter 7, "New Roles for Teachers in Today's Classrooms," Susan B. Millar reminds the reader about the research presented in Part 1 of the volume on the changes in students and their more diverse learning needs. She then reports on a fascinating case study of a first-year engineering course in which the expressed concerns of students initiated a set of changes in institutional policies and pedagogical and curricular practices with the result that the faculty redesigned the learning environment. One important outcome was that the roles of teachers and students were changed as part of a shift away from a traditional "Cartesian" approach to teaching and learning and toward a "dialogical" learning environment — a difficult but reportedly worthwhile set of adjustments. The new learning environment was based on students assuming in their interactions "a more active role in the construction of engineering knowledge" (p. 171). In Chapter 11, "How Research on Learning Strengthens Instruction," Marilla D. Svinicki, Anastasia S. Hagen, and Debra K. Meyer review research on a wide array of teaching activities and learning processes, integrating the findings and drawing out the implications of research more than is done in most other chapters of the book. The authors express the hope that instead of the faculty asking, "What is the best instructional method for this content? they will wonder, Given what I know about learning, what should be included in my instruction, regardless of the particular instructional method I am using?" (p. 282).

Part 3 examines ways in which knowledge of the broader contexts of higher education — from departmental or college to institutional and extra-institutional viewpoints — affect the practice of teaching and learning. The four chapters in this part examine the effect on students' learning of several broader contexts, such as the knowledge base for teachers, faculty vitality, multiculturalism, and assessment of student outcomes. For some readers, these issues may seem to have a less direct or less immediate impact on their classroom learning environments; however, the authors of these chapters offer compelling arguments regarding their materiality or pertinence for creating optimum learning environments. In Chapter 14, "Supporting Diversity Through

Campus Culture," William G. Tierney and Estela Mara Bensimon suggest cultural strategies — grounded in critical and feminist theories — to help institutions develop as multicultural organizations that can provide effective environments for teaching and learning. Tierney and Bensimon point out what a multicultural perspective might reveal for teachers in their roles as managers or designers of learning environments. "We rarely acknowledge that the word 'student' does not represent a unified collegiate experience, that 'community' can refer to life within a group that holds itself apart from the whole, and that 'knowledge' may lie outside the center, at times in opposition to what is viewed as legitimate. . . . [A]n analysis of the institutional climate at Stanford University revealed that faculty of color are considerably less optimistic than white faculty about the university's commitment to equality" (p. 345).

A distinguishing feature of this book is its persistence in focusing its presentations on the student and the learning paradigm, in spite of the predominance of the instructional paradigm in framing research on teaching and learning in higher education [1]. This volume goes a long way toward accomplishing what to many faculty, faculty developers, and other scholars and practitioners has appeared very challenging, and perhaps even impossible: to draw the implications for effective practice from existing research on teaching and learning in such a way that it is consistently framed within the context of an explicit learning paradigm. It shows us the small steps — too often implicit or hidden from view — that have already been taken toward a learning paradigm in recent research on teaching and learning. In the introductory material and across topical chapters, the editors and authors draw our attention to the incremental and realistic fashion in which the learning paradigm is being moved from its historically marginalized and off-stage role — long implicit in the traditional and dominant instructional paradigm — to center stage and a starring role. Moreover, this book takes an approach to the learning paradigm that proclaims the inevitable inseparability of teaching and learning; yet it does not portray a diminutive role for teachers. On the contrary, it is important that teachers continue to manage "learning experiences and environments . . . [and] 'monitor' learning processes" (p. 151). However, the role of the student becomes more central to a learning process that is dependent on dialogical interactions and sharing of experiences and perspectives among students and teachers as members of a learning or knowledge community.

Another prominent feature of *Teaching On Solid Ground* is that it represents one of the earliest book-length attempts to begin to flesh out the scope of a scholarship of teaching. It accomplishes this primarily by establishing connections between research about teaching and learning and the practice of instruction. Many examples across the chapters emphasize the one particular dimension of the scholarship of teaching where there is the greatest overlap with the scholarship of research. Chapter authors primarily draw upon and interpret the results of research on teaching and learning as a basis for presenting implications for the effective practice of instruction. This is valuable both because it acknowledges an important dimension of the scholarship of teaching and because most faculty will probably view this approach to teaching and learning as a "legitimate" form of scholarship. In an excellent introductory chapter, "Why Scholarship Is the Bedrock of Good Teaching," Maryellen Weimer also includes notions such as the "wisdom of practice" and "reflective practice" as part of what constitutes a scholarly orientation to teaching. There are several chapters

in the volume that represent illustrations of the wisdom of practice as a dimension of the scholarship of teaching. For example, in Chapter 5, "Collaborative Learning: Creating Knowledge with Students," Roberta S. Matthews describes collaborative learning arrangements in which students jointly construct knowledge from their own diverse experiences and viewpoints. She integrates the experiences of faculty across varied teaching situations and relates what they have learned to available research-based knowledge.

Unfortunately, this volume does not have a chapter that clearly illustrates or exemplifies the prominent role that reflective practice can play as a dimension of the scholarship of teaching. Donald Schon [3] — who popularized the concept of reflective practice — recently expressed his thoughts about an epistemology of practice that would expand the scope of the scholarship of teaching: "We should ask not only how practitioners can better apply the results of academic research, but what kinds of knowing are already embedded in competent practice. . . . If teaching is to be seen as a form of scholarship, then the practice of teaching must be seen as giving rise to new forms of knowledge" (pp. 29, 31). He refers to a form of action research based on his now familiar processes of knowing-in-action, reflection-in-action, and reflection-on-action — situated both in content and context — which in combination emerge and constitute forms of new knowledge generated during practice. Some researchers have responded with detailed schemes for codifying the reflections-in and reflections-on practice of professors in the very act of generating new situational knowledge about teaching [2]. The contribution of this book could have been greater and one of its primary themes — defining and illustrating the scholarship of teaching — could have been more comprehensively addressed with the addition of at least one strong chapter that demonstrated how new knowledge about teaching and learning can be generated through reflection-in and reflection-on action.

Teaching On Solid Ground is an edited volume of high quality. The editors and chapter authors are experts in their respective topical areas, and their writing is uniformly good across chapters. The editors' introductory materials for the entire volume as well as each of the book's three main parts are meaningful and clear. This is not a book of tips on how to improve one's teaching techniques; rather, this book is an excellent resource for teacher-scholars. It is written for faculty who view teaching as a stimulating and complex intellectual activity — one to be rigorously examined. It is written for both new and experienced faculty who want to study the research on teaching and learning (including its implications for practice) and then make their own decisions about what is appropriate for their particular teaching situations.

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Planning Responsibly for Adult Education: A Guide to Negotiating Power and Interests, by Ronald M. Cervero and Arthur L. Wilson. San Francisco: Jossey-Bass, 1994. 208 pp. \$29.95

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Individuals and groups involved in the design and administration of educational programs are becoming more attuned to the influences of politics in their work. In *Planning Responsibly for Adult Education*, Cervero and Wilson offer refreshingly realistic insight into the relationship between political behavior and adult education, and they provide an alternative model for the program-planning practice of adult education programs that focuses specifically on this relationship. In choosing to focus on political activity, the authors tackle a subject that many others have either addressed only briefly or attempted to skirt almost entirely. And although the emphasis here is on adult education, this text is one that could be used as a reference by a much broader audience of curriculum and program planners in all arenas of postsecondary education.

Cervero and Wilson divide their book into three sections. In Part I, the classical, naturalistic, and critical viewpoints of program planning are discussed, with reference to such theorists as Knowles, Tyler, Houle, Knox, Freire, and Hart. Theorists drawing from the classical viewpoint, such as Tyler, approach instructional design in a very structured, prescriptive manner, moving through a series of steps from determining learner needs to assessing program outcomes. The naturalistic viewpoint, such as the work of Houle, includes a similar step-by-step process but accounts for the context-specific nature of decision making by suggesting that each proposed program conform to one of eleven categories of educational situations. Theorists of the critical viewpoint, such as Freire and Hart, focus abstractly on the political and ethical nature of program planning with minimal guidance for application to daily practice. According to Cervero and Wilson, the shortcoming of these viewpoints is that each "strongly emphasizes one or the other sides [*sic*] of the typical dichotomy of planner discretion and structural constraints or, more generally, rationality and politics" (p. 13). The authors propose an alternative model of program planning for adult education which places relationships and social context at the heart of the process. According to their model, planning is "a social activity in which planners negotiate interests" (p. 31). By presenting it as such, the authors correctly emphasize power, interests, and political activity not as mere annoyances to be tolerated, but as central to the planning process. Part II consists of a detailed presentation of three case studies, drawn from actual situations and designed to illustrate the concepts proposed in the authors' program-planning model. In Part III the authors attempt to answer the practical question of how program planners can act responsibly, given the highly political nature of their work. They suggest that rational action in the program-planning process is predicated upon sound technical, political, and ethical understanding as well as an understanding of the social nature of planning as presented in their model.

The authors begin at high speed, daring to go where no other within adult education has dared to go so honestly and completely, treating political activity as more than a mere sideshow in the planning process. Instead, program planning

is presented as a social practice where negotiation of interests is the central activity. Interests are the prime motivators in the exercise of power, and the planning process is comprised of a series of judgments. This view, which acknowledges that context and human action are central to program planning, is much more flexible and pragmatic than the linear, formulaic process suggested by the classical viewpoint of program planning. Many program planners will find a breath of fresh air in the model proposed by Cervero and Wilson, who are among the first to consider so seriously the realities of the adult program planner's daily activity.

Cervero and Wilson also present the relationship between planning and relationships of power as one of mutual shaping: "We are thereby arguing that power relationships and interests always both structure negotiations and are reconstructed by these same practices" (p. 30). That is, human action both *structures and is structured by* social setting, making the process of program planning extremely dynamic. The long-term effects of planning practice, therefore, become clear, because the process of negotiation can change power structures within an organization, and this change in turn will influence the planning and negotiation of future programs. The cold, hard truth about the political nature of program planning seems at last to have been laid bare; at the same time the authors look positively on the interdependence of program planning and organizational change. What has been well stated and thankfully pragmatic to this point, however, quickly loses its novelty as the authors state and restate their thesis, pounding it into the reader's head until the sense of urgency to continue reading is somewhat dampened.

Part II provides temporary relief from the repetition by presenting three case studies, one each drawn from a business, university, and not-for-profit organizational setting. Each case manifests the authors' model in specific educational contexts, but the detail and description hardly merit the number of pages this section fills, given that the highly sticky nature of negotiation and power structures, expressed so emphatically earlier, seems modified for easy resolution and closure (for the sake of illustration). In the cases presented, there are several instances cited where one or more major players in the planning process do not necessarily share other key players' interests. However, there is rarely, if ever, a situation in which key players' interests are in direct, seemingly unresolvable conflict. How, for instance, does Cervero and Wilson's model account for situations where the major planner is interested in "night," while his supervisor, the organization's CEO, is interested in "day?" The authors note that conflicts of interest are likely to occur in the negotiation process and that it is in our best interest as program planners to anticipate such conflicts, but they offer very little insight as to how to resolve a gridlock situation or how to resolve relationship issues when a judgment or decision angers, alienates, or undermines one or more key players. This section does a disservice to the well-developed and insightful ideas presented earlier in the text, and the reader is left wondering why the authors devoted so many pages to such a wealth of unnecessary detail.

In Part III the authors purport to be practical and action oriented, focusing on the ingredients needed for responsible action in program planning; however, they provide little help for difficult situations. They introduce a table adapted from Forester's critical social theory, which presents four ways in which varied power relationships and interests can shape the context around program planning and the type of strategy that should be used in each situation [4]. This

could potentially have been the most insightful, valuable section of the book and could have marked the point at which somewhat broad (although accurate) claims and abstract theory were translated into practice and made truly applicable to the work of program planners. Elsewhere in Forester's work there is an invitation to do just that: "The statement 'planning is political' need not be the end of discussion; it may be a fruitful beginning" [3, p. 218]. Unfortunately, however, this mini-section remains underdeveloped — the concept is thoughtfully presented, but attention to its application is perfunctory at best — as the authors again make the business of negotiation too tidy and simplistic, slipping back into the familiar territory of *defining* power, judgment, interests, and the necessity of skilled, informed negotiation. Rather than redefining the model, it would have been useful here to press on, incorporating concepts from the model with Forester's ideas and using some messy, highly inflammatory situations to shed light on how they actually *shape* practice.

Wilson and Cervero are to be commended for their tactful, honest, and realistic perspective on organizational behavior and program planning. Early in Part I and again with the presentation of Forester's model of political boundedness in Part III, they touch on ideas and information highly relevant to the practice of program planning. Their text is a very timely addition to such classic authors in adult education as Knowles [6, 7], Apps [1, 2], and Houle [5]. Even a perspective as novel as theirs, however, which is predicated upon human action in and upon a social context and which offers anticipation of politics, power, and negotiation as the key to successful, responsible, democratic program planning, is incomplete unless accompanied by a second "handbook" covering the topic of how to address a situation in which foresight is not enough to resolve serious conflicts of interest in a planning process. *Planning Responsibly for Adult Education*, therefore, should be put on the shelf as a very pragmatic guide; but adult education administrators (and others) may wish to reserve a space next to it in hopes of locating a volume two, *How to Respond to Potentially Damaging Conflict in Program Planning: When Forethought Is Not Enough*.

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State Policy and the Public Research University

A Case Study of Manifest and Latent Tensions

The 1990s are unquestionably bringing to light a growing array of uncertainties regarding the future of higher education. Recent survey data suggest that the support of the general public and political leaders for higher education is more fragile than educators would wish (Harvey & Immerwahr, 1995; Wadsworth, 1995). A rising number of exposés of problems in higher education have been published, and the volume of public criticism of some university practices has clearly increased (Prewitt, 1993). Uncertainties may be particularly acute in institutions drawing heavily on taxpayer funds. There, rising demands for public accountability may bring conflict with deeply held academic values and threaten the ambitious educational, scientific, and social missions of some institutions (Cole, 1993; Bok, 1990, 1992).¹

In the public postsecondary sector, strains in institutions' social and political support are exacerbated by state governments' ongoing fiscal difficulties. Those difficulties have hit universities especially hard: spending on postsecondary education has taken the worst hit of all state spending categories in recent years (Gold, 1995). Economist and former college president David Breneman has noted in a recent editorial essay

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(1995, p. B2), "After four decades of largely unbroken growth in resources and enrollment, higher education is several years into a new era which severely challenges those whose careers have been built on the assumption of unending prosperity." In the face of this difficult financing climate, criticism has come from within as well as outside the public postsecondary sector. University of California system provost Walter Massey noted in 1994 that many public research universities are endangering their previously unquestioned popular support by failing to be accountable stewards of public funds. As John Brandl, a policy researcher, University of Minnesota professor, and veteran state legislator in Minnesota, has argued, "The automatic deference that society and politicians used to have toward public universities has eroded" (Healy, 1996, p. A19).

This article focuses on one increasingly prominent policy alternative for dealing with the current political and financial uncertainties: curtailing the enrollment of out-of-state students in public colleges and universities. From a purely fiscal perspective, directly limiting out-of-state enrollments, or at least imposing substantially higher prices for out-of-state students' attendance, can make sense, especially for states facing both fiscal and enrollment pressures. Breneman (1995) has suggested that those states need to "think the unthinkable. . . . [S]weeping changes must be considered, because the combination of growing demand and limited state resources will not permit painless solutions" (p. B2). Of course, higher tuition levels for out-of-state students are a longstanding feature of state postsecondary policy around the United States, and outright limits on such enrollment have been in place for years in several states with nationally prestigious "flagship" institutions (e.g., Michigan). In recent years, however, such policies have become more prevalent around the country. More states have adopted out-of-state enrollment limitations, and existing policies have been tightened.²

The main argument of those favoring such policies has been that a state's public universities should strongly emphasize serving the needs of state citizens rather than the needs of those from other states. In states with high enrollment demands and limited fiscal ability to expand available student spaces the argument can be especially appealing. Without strict limits on enrollment by out-of-state students, some state policymakers argue, highly qualified out-of-state students will increasingly consume classroom capacity and thereby deny spaces for taxpaying state residents and their children. From the perspective of many public policymakers, the logic is clear and convincing: quality higher education is a valuable state resource that must be protected for the citizenry

largely responsible for its funding, especially in today's environment of fiscal constraint.

Dissenters to this position have long argued that imposing such limitations inevitably results in a more provincial undergraduate population and a less enriching college education. Harvard president Charles Eliot argued in the late nineteenth century that universities should welcome children "from North and South, from East and West" to let them experience "the wholesome influence that comes from observation of and contact with" people different from themselves (cited in Rudenstine, 1996, p. B2). Commenting on the great quality of his experience as an undergraduate at Harvard, W. E. B. Du Bois of the class of 1890 said the university "was no longer simply a place where rich and learned New England gave the accolade to the social elite. It had broken its shell and reached out to the West and to the South, to yellow students and to black. . . . [President Eliot and others] sought to make Harvard an expression of the United States" (ibid.).

Contemporary research evidence provides some support for that approach. Respected college-effects researcher Patrick Terenzini stresses that heterogeneity in a college's student body can present educationally beneficial challenges to what individual students know, believe, and value (personal communication, May 1996). In that vein, those opposing strict out-of-state [OOS] limitations argue that such policies can seriously erode public universities' quality, reputation, and perhaps even relevance, especially in the globally competitive environment for which today's students must prepare. What is more, shrinking the pool of talented out-of-state students on campuses may well reduce, in turn, the number of those from outside the state staying in the state after graduation, thus possibly damaging a state's economic, social, and cultural prospects. Strict OOS limitations may ultimately render education in public institutions less desirable both for state citizens and for others. Therefore, opponents argue, although mandating geographic restrictions on enrollment would appear to be protecting a cherished asset for use primarily by a state's citizens, such restrictions may in the longer term endanger the very asset such a policy aimed to protect.

Obviously, the out-of-state student issue is controversial and portentous. In this article we present an investigation of one prominent case of enrollment limitation. We focus upon the University of North Carolina (UNC) system, and in particular its "flagship" research-university campus at Chapel Hill (UNC-CH). UNC-CH is widely regarded as a leading public university (Jaschik, 1989), and the UNC system is likewise widely respected as a premier public system, ranking second in a poll of college presidents, state governors, and other educational leaders.³

UNC-CH is increasingly popular among prospective students nationally, and the pool of talented applicants is both wide and deep. Governors of the UNC system began aggressively and formally restricting the enrollment of out-of-state students in 1985–86. Currently, no more than 18% of the admitted freshmen classes in UNC institutions may come from outside the state. The case study we present was designed as an intensive investigation of the nature of the decision-making process surrounding this issue. Given UNC-CH's national reputation as a "public ivy," policy experiences there could be generalizable and influential elsewhere.

Conceptualization

Three concepts drawn from various aspects of organization theory informed the design, execution, and interpretations of this analysis. From bureaucratic-rational theory in sociology, we employ the notion of the multipurpose organization. From decision theory in management science and political science, we address alternative models of decision making in complex public organizations. Finally, from the organizational-development literature, we explore the notion that tension made manifest can be useful in organizations. Below, each of these concepts is introduced and connected to the distinctive context of state-supported higher education.

The public research university is a clear example of a multipurpose professional organization (Hall, 1982). Because such organizations tend to allow flexibility in tasks undertaken by their personnel and challenges to status quo interpretations of goals, some authors (e.g., Etzioni, 1964) have suggested that they may be ultimately more effective than organizations with clear-cut goal consensus. Nevertheless, the various goals can make incompatible demands on a workforce; external constituencies often differ in the goals they encourage the organization to pursue; and conflicts can arise over the proper allocation of means, time, and energy (Etzioni, 1964). These strengths and weaknesses of multipurpose organizations are clearly present in the state-supported research university (Birnbaum, 1988; Tuckman & Chang, 1988). Although having multiple goals allows those institutions to take advantage of a variety of alternative opportunities, it also subjects them to a variety of difficult countervailing pressures (Finifter, Baldwin, & Thelin, 1991).

In public universities, as in all public organizations, the emerging agendas of external authorities prompt many of the difficulties involving goals.⁴ As noted earlier, the factor currently highest on the public agenda in most states seems to be accountability for the use of taxpayer dollars. The public and the legislators who represent it seem to want further as-

surance that postsecondary educators are spending their tax-based resources in the best interests of their states. Although the continuing existence of public higher education is not itself in doubt, allocations for pursuing various goals *within* individual institutions are being debated by external authorities (Healy, 1996). In public research universities, the pursuit of a geographically diverse student body is only one of many institutional goals currently competing for attention and funding.

To resolve conflicts of this kind, the management-science literature usually advocates the adoption of "procedural rationality" (see Dean & Sharfman, 1996). Prominent elements of this approach are the collection of information relevant to a decision and the reliance upon information in making choices (March & Simon, 1958; Stokey & Zeckhauser, 1978). Graham Allison (1971) and the late Aaron Wildavsky (1979) both noted that a similar approach has often been advocated in the political-science literature focused on policy analysis and policy making in public settings. Both also stressed, however, that the traditional literature's call for systematic, information-driven decision making in government was not always heeded. In fact, other decision styles are often far more characteristic of policy making at the national level.

Wildavsky (1979) was especially interested in what he termed the "social interaction" style of decision making. He drew a stark contrast between that style and the traditionally favored information-driven style, which he termed the "intellectual-cognition" style. Dominant groups using the "social interaction" style will not collect, analyze, or present information if doing so might raise tensions that could slow the resolution of an issue, threaten the group's longer-term power base in the policy-making system, or be costly in other ways.

Wildavsky argued that this approach is more political and less rigorously analytic in nature than the cognitively driven styles of decision making that scholars and engineers tend to prefer, but it is not necessarily less "rational." From the perspective of those in power, it can make quite good sense. Although a sizable body of research suggests that political behavior can undermine effectiveness because it often involves the suppression, disregard, and distortion of potentially useful information (Cyert & March, 1963; Pettigrew, 1973), a focus on "objective" analysis at the expense of attention to the power structure surrounding an issue can also lead to ineffective policy making (Pfeffer, 1981). Wildavsky therefore concluded with admonitions on the virtues of policy making based on balancing social interaction and intellectual cognition.

In the governance of public higher education, there is ample evidence of problems of imbalance between these contrasting decision-making approaches. Simsek and Louis's (1994) case study presents the com-

elling story of problems arising when a public research university's comprehensive strategic analysis of its academic alternatives collided with largely ignored political realities. Conversely, numerous historical studies of academic freedom, admissions, and tuition setting chronicle the potentially harmful effects of basing state higher-education policy on purely political reasoning (e.g., see Metzger, 1955). Notable recent evidence to that effect comes from a case study by Trombley (1993), suggesting that popular anecdotes and immediate budgetary concerns have shaped California postsecondary policy far more than orderly, empirically grounded analysis of the state's needs and goals in higher education.⁵

In the tradition of Wildavsky, one might argue that a purely social-interaction approach to higher-education policy making tends to shortchange fundamental educational questions, whereas an intellectual-cognition approach tends to shortchange fundamental questions of public support. Those support questions are at heart questions of the basic societal and economic underpinnings of the public educational enterprise, as expressed directly and indirectly through officials elected by the public.⁶ Pursuing one decision-making approach without attention to the other may raise the potential for enduringly unresolved tensions. To pursue analysis without attention to political realities provides fertile ground for public discontent, whereas pursuing politics without attention to analytic ambiguities and "red flags" provides fertile ground for educational ineffectiveness. Effective decision styles may be balancing acts that embrace both the intellectual and social approaches.

The act of embracing both approaches implies accepting and dealing with the tensions raised by both. The notion that latent tensions are best addressed by making them manifest may be critical to understanding policy making in this arena.⁷ By considering value-laden questions (such as the implications of tuition increases for minority access) solely through examination of empirical evidence, the cognitive approach may deny the inevitable tensions of the democratic political process their ungainly due. In contrast, by considering such questions solely within the parameters of unequal power and influence, the social-interaction approach may avoid the potentially useful tensions brought to the surface by "procedurally rational" empirical analysis. The exploration of evidence holds the potential for expanding the grounds of a discussion, highlighting areas of disagreement (i.e., exposing tensions), and sometimes resolving differences.

Prior studies of postsecondary policy making (reviewed above) suggest that overreliance on social interaction is a greater problem in postsecondary policy making than overreliance on intellectual cognition. It

is ironic, therefore, that intellectually driven problem solving is normatively at the heart of the day-to-day work of higher education. Indeed, making tension manifest is a tool for progress there. As Kegan (1994) has noted, the pursuit of evidence is second nature in most academic disciplines: assumptions are stated, instances of supportive and opposing data are examined, and conclusions are drawn based on the weight of the evidence. Conflicting views of scholars routinely lead to research explorations (e.g., "critical experiments") which yield new understanding. Newly discovered evidence can resolve tensions or exacerbate them, but the tensions themselves are at the heart of the endeavor. Similarly, professors present scholarly conflicts in classroom discussions to aid the learning experiences of their students.

In the larger world of postsecondary policy making, however, tensions are often avoided. Kerr (1982) has argued that the vagueness of university goals preserves room for many views and activities under one institutional structure. University presidents often utilize that vagueness for the advancement of their institutions. Similarly, state leaders often seek to defuse tensions over higher education by adopting compromises which "paper over" differences on difficult issues, such as the relative role of research and teaching undergraduates. Martin Trow (1983) has suggested that such principles may be in operation in California. Specifically, he notes that the state of California and the University of California, Berkeley, have an unwritten compact: "We will support your ambitions to be a world-class research university if you will look after our bright children" (Trow, 1983, cited by Geiger, 1985).

Thus, those in different parts of university systems deal differently with the tensions confronting them. Faculty in their scholarly work may tend to be more at home illuminating various facets of a research-based tension, well-removed from the political and bureaucratic tensions surrounding state policy making, whereas state leaders (and sometimes institutional leaders) may often prefer to manage the ever-present tensions of governance by blurring certain information-based tensions. Each side spotlights and embraces some tensions while downplaying and avoiding others.

Research Questions

This conceptualization provided three fundamental research questions for the present study. First, who has been making the central decisions concerning the out-of-state enrollment issue in North Carolina's university system? This question addresses the level (academic, bureaucratic, and legislative) at which decisions have been made. Second, how have

those decisions been made? That is, how have actors framed the issue, advanced their interests, and defended their points? Have tensions over the ultimate educational implications of enrollment limitations been made manifest through empirical analysis and open-ended discussion or been kept latent in decision making? Third, how have the enrollment policies been implemented and institutionalized over time? We were especially curious as to how OOS enrollment limitation was received and implemented on the Chapel Hill campus, a multipurpose, nationally renowned setting where the new policy's effects were likely to be particularly dramatic.

Research Design

This research project was directed toward examining decision structures and processes surrounding the OOS issue in North Carolina. Thus, the analysis here was focused on the ways OOS policy emerged and was implemented there, not on the virtues and flaws of the specific limitations ultimately adopted. The research was based on intensive analysis of documents and a series of interviews with key actors involved in the issue. A "semi-structured" interviewing approach and a triangulating approach to data-gathering assured both rigor and flexibility in the design, in keeping with Yin's (1989) recommendations for case-study methodology.

The collection of documents was an ongoing aspect of the research. Documents identified and obtained early in the study were supplemented throughout the study period by documents recommended by study interviewees and other North Carolinians familiar with the issue. By the end, we had assembled an extensive set of legislative reports, accounts in the media, and internal communications and reports from the university and the UNC system. Primary documentary sources were Clarke (1986); Third Century Project (1986, 1987); North Carolina Memorandum (1986a, 1986b); Admissions Task Force (1987); Cloninger (1988); Fisher (1988); Graham (1989); Jaschik (1989); General Alumni Association (1989); Students for Educational Access (1990); Pitts (1990); Economic Future Study Commission (1991); Wallsten (1992); *Daily Tar Heel* (1992); Student Government Executive Branch (1994); a UNC-CH internal self-study report (University of North Carolina at Chapel Hill, 1995); Hardin (1994); and Cambanis (1995).

Over the course of the study, fifteen interviews were conducted with legislative staff leaders, board members of the UNC system and the UNC-CH campus, high-ranking administrators of the UNC system and the UNC-CH campus, UNC-CH student-government leaders, and UNC-

CH faculty members. All interviews were conducted in person in North Carolina by the first and third authors of the study. Those interviewed were drawn largely from a target sample identified from document analysis, but new informants for interviews were added opportunistically as the study proceeded, with the goal of interviewing as many critical actors in the debate as feasible. All interviewed were assured that their responses would be kept confidential and that quotations used in presentations, papers, and publications would be made unidentifiable as to their source. In some cases, respondents told us that neither confidentiality nor anonymity was important to them. This gesture allowed more specific citations in some elements of the analysis text.

Interviews followed the protocol and series of questions outlined in the Appendix. As may be noted there, the approach was a blend of what Yin (1989) has termed the "open-ended" and the "focused" interview styles.⁸ That is, the formal structure of the protocol and questions was balanced by encouragement for each respondent to elaborate upon any question at whatever length desired. Therefore, although each question was asked of each respondent, the interviewer allowed the remaining time in interviews to flow naturally around themes raised by respondents. Interviews were tape-recorded and, when transcribed material was ambiguous, respondents were asked to verify the accuracy of investigators' interpretations. The intent in the interviews was to follow what Patton (1980, p. 205) has termed "the fundamental principle" of interviewing in such a context: "to provide a framework within which respondents can express their own understandings in their own terms."

Background for the Case Study

Some prefatory descriptive material is necessary for understanding the findings of the study. The following sections outline the governance of public four-year higher education in North Carolina and the chronology of the out-of-state enrollment issue there.

Governance of the University of North Carolina System and Its Institutions

In 1971 and 1972, North Carolina instituted a "superboard" system of governance for postsecondary education. That is, from that point forward, its public four-year institutions were to be governed by one board with budgetary, program-review, and policy authority. This governing arrangement, among the most centralized in place in the United States, is similar to that of Wisconsin, Iowa, Georgia, Massachusetts, and Arizona.⁹ In North Carolina, however, the sixteen individual campuses

maintain their own boards, which have limited but real authority over certain campus policy issues.

Thus, the groundwork is in place for some tension over the domains of institutional and system authority. Graham (1989, p. 103) has noted that "flagship campuses have widely deplored the tendency of superboards to level down existing peaks of excellence"; one board chairman complained that with superboards "pretty soon, everybody is four feet tall." In North Carolina, the potential is certainly there for central powers to come into conflict with individual institutions. Legally, the University of North Carolina is a single public system made up of sixteen public baccalaureate-granting institutions. The state's General Assembly elects 32 voting members for UNC's Board of Governors, who serve four-year terms, with a maximum of three full terms possible.¹⁰ The Board of Governors elects a president, who proposes a budget for the system. After approval by the Board of Governors, the president presents the budget request to the General Assembly and its committees. The president communicates with the individual institutions through their respective heads, who are called chancellors.

At the campus level, each institution has a thirteen-member Board of Trustees. Eight of these are elected by the system's Board of Governors, four are appointed by the Governor, and one is the president of the institution's student government association. Terms are for four years, and members can be elected to two consecutive terms. Chancellors of institutions owe their appointments to the system's president, who nominates a prospective chancellor for confirmation by the Board of Governors. Each nominee put forward by the president, however, is drawn from a list of at least two names nominated by the Board of Trustees of the institution. An institution's chancellor carries out the policies of the system Board of Governors and campus Board of Trustees; through the system president, he or she keeps the Board of Governors informed of the needs of the individual institution; serves as an advisor to the president; and participates in the budget process for the system. The chancellor is to ensure that there is a faculty council or senate on his or her campus and may attend and preside over all meetings.

The UNC system provides dollars to its institutions according to a formula based on enrollment and other factors. Tuition and fees for UNC institutions and programs are set at the system level by the Board of Governors, consistent with the actions of the General Assembly. The state constitution mandates that tuition be kept low to maintain access for citizens. There is little latitude for institutional influence on these decisions, and the funds from increased revenue from tuition and fees on individual campuses do not "belong" to that campus. Instead, they go into the state system's general funds account.¹¹

Each individual institution establishes admissions policies for programs on its campus. Nevertheless, the Board of Governors has the power to establish enrollment guidelines for each institution, and the outcomes of campus-level admission policies are matters of legitimated concern for the Board of Governors and the legislature. The experience of recent years suggests that, if the student-body composition resulting from a campus's admissions policies is viewed unfavorably by those outside parties, sanctions can follow. Those sanctions can, in turn, indirectly shape institutional admissions policies, regardless of the existence of formal campus-level authority over admissions.

*The Out-of-State Enrollment Issue –
Actors and the Chronology of Events*

The actors in this drama fall into three clusters: the UNC-CH trustees, chancellor, faculty, students, and administration; the UNC system Board of Governors, president, and staff; and the state legislature and its staff. The events are best understood chronologically. Although not an exhaustive history, the following highlights the involvement of the actors and the pressures compelling their involvement.

Before unification of the UNC system in 1971, each campus determined its own admission criteria with the understanding that each institution was to serve the state and tuition was to be kept low. After 1971 the system leadership advised UNC-CH to keep out-of-state undergraduate population at about 15%, with exceptions for athletes, children of alumni, and applicants with special talent. At the same time, the UNC system froze the size of the student body. Through the 1970s, however, the limit on out-of-state students was largely ignored. Especially in the early years of the decade, college students were less mobile, and those who attended public institutions tended to stay in their home state. When mobility increased in the late 1970s and early 1980s, funding was plentiful and there was little concern over the tuition subsidy for out-of-state students. In 1980 approximately 15% of the new freshmen at UNC-CH were from out of state.

By the mid-1980s the proportion of out-of-state students in the system and at UNC-CH had grown and financial concerns had gained importance. In particular, taxpayers were becoming more aware of the cost of subsidizing out-of-state students. The legislature, in concert with the system Board of Governors, decided in 1985-86 to limit enrollment of out-of-state freshmen in each institution to 18% starting in 1988.¹² Several institutions in the system opposed this limitation, but for different reasons. The different grounds on which the institutions based their opposition provide a view of the equity issues that inevitably exist in a system that includes national research institutions, regional universities,

and state colleges. For example, some schools located close to bordering states complained that limiting the geographic area from which they could draw would jeopardize their ability to fill the freshman class; some historically Black institutions complained that their enrollment depended on attracting significant numbers of out-of-state students to specific programs they offer; UNC-CH officials feared that such a limit could compromise the university's national stature and result in an insulated, more provincial institution (see Clarke, 1986; Effron, 1986). In an effort to protect spaces for which academically talented out-of-state students could compete, UNC-CH trustees proposed that out-of-state athletes and children of alumni not be counted in the limit. The Board of Governors rejected this proposal.

In 1988 UNC-CH began a search for a new chancellor. As part of the process, the search committee charged a team of outside reviewers with the task of examining the condition of the university. The reviewers noted that the 18% limit had "fueled faculty fears" that two student bodies were developing: a small, elite group of mainly out-of-state students and a larger, less selective in-state group. Although a significant number of the in-state students were high performers in their secondary schools, better prepared students from stronger out-of-state schools outdistanced them in the classroom and in other university activities (Fisher, 1988, p. 22). Reviewers found that, in general, faculty supported raising the limit and noted that the SAT average of out-of-state freshmen was 1325, compared to 1125 for in-state freshmen (Fisher, 1988, p. 25).

In 1989 a new chancellor arrived, and faculty and alumni used the occasion to observe that intrusive state regulation, lack of respect from system administration, and inadequate finances were endangering the university's quality and ability to compete nationally. In his inaugural remarks, the new chancellor called for less regulation by the system but predicted that change would come slowly. The next year UNC-CH student leaders joined the conversation by calling for increased out-of-state enrollment as a means to enhance quality and diversity. The students declined to name a desirable ratio of in-state to out-of-state freshmen but noted that competitiveness should be preserved. Students suggested that in years when the number of in-state applicants declines, the university should admit more well-qualified out-of-state students in lieu of less-qualified in-staters. Although university administrators agreed with the students, stating that even an increase from 18 to 20% would help, no action was taken by the system leadership.

In 1991 a statewide commission to study the economic future of North Carolina observed that the state's public universities contributed to its economic, cultural, and political enrichment. The commission

noted especially the international reputation of the research institutions. State law mandates low tuition to make higher education highly accessible to all citizens, but from 1970 to 1990 the percentage of the cost of education born by in-state students had decreased from 13 to 8%. The commission questioned the wisdom of maintaining this low tuition rate and recommended that campuses be allowed to increase tuition and use the resulting revenue to fund financial aid and enhance academic programs (Economic Future Study Commission, 1991, pp. 39–41). Their recommendation was not adopted by the system leadership.

In the same period, however, the North Carolina House of Representatives responded to financial pressures by increasing out-of-state tuition by 25% in 1991 and by 15% in 1992. System officials criticized the move, stating that the raise could threaten UNC-CH's competitiveness and noting that 40% of UNC-CH's out-of-state students stay in the state and contribute to its economic strength. Legislators disagreed on the grounds that taxpayers should not so heavily subsidize education for out-of-staters (Wallsten, 1992). One legislator noted, "They say we need out-of-state students to bring more culture to the system. I'd say a real naughty word for that one, starting with bull."¹³

In 1994, to help mark the university's bicentennial, the UNC-CH student government put forward a report (Student Government Executive Branch, 1994) that included a call for revised admission quotas. Attributing the university's reputation for selectivity to "intense competition for out-of-state admission slots" (p. 41), student-government officials noted that the state gains when out-of-state students improve overall student quality, diversity, and competitiveness. The report noted that UNC-CH's openness to out-of-staters was a "brain magnet" for the state. Citing data suggesting that children of out-of-state alumni receive preference over other out-of-state applicants, the report recommended excluding children of out-of-state alumni from the quota, thereby returning more slots to the competitive pool.

A year later, a ten-year re-accreditation self-study on the Chapel Hill campus contained the suggestion that the university give greater weight to selection criteria that focus on intellectual ability and intensify its efforts to keep the brightest North Carolina students at UNC-CH (University of North Carolina, 1995). In the self-study report a task force on undergraduate programs urged university officials to work with system and state personnel to reach a more complete understanding of the issues concerning out-of-state admissions and, when possible, win a reasonable increase in the allowed percentage. Report authors noted that increasing the out-of-state cohort would improve the intellectual quality of the entire student body, contribute to a more favorable intellectual cli-

mate, and thus benefit all students (University of North Carolina, 1995, p. 92).

Also in 1995, UNC-CH campus chancellor Paul Hardin retired. In a final campus address, he remarked that although local and regional political pressures were understandable, misguided ambitions could threaten vital diversity and push American higher education toward "sterile homogeneity" (Hardin, 1994, p. 1). He called on statewide governing boards to temper local ambition and political pressure with planning and coherence and to protect the different missions of the institutions within their charge. He urged universities to support their faculties and make them full partners in institutional concerns. Clearly implicit in his message was a call for openness to students from beyond North Carolina's borders.

Most recently, however, the system's Board of Governors initiated new moves meant to assure that budgets will be cut at public institutions in the state if they enroll too many students from out of state (*Chronicle of Higher Education*, 1995). Apparently, the Board and legislators had come to believe that there were too many ways for institutions to avoid penalties for exceeding the 18% limit.

Findings

Keeping in mind both the complexity and overlapping nature of the information we have gathered, we can array our specific findings under the three research questions that framed the study. The questions focus, respectively, on who has made decisions, how they have been made, and how they have been implemented.

Who Has Been Making the Central Decisions Concerning the Out-of-State Enrollment Issue?

We found that *the enrollment limit was imposed from the legislature and system officials with little formal or informal discussion among UNC-CH constituencies or between those constituencies and higher-level policymakers*. Entering the study, we were curious who made the central initial decisions regarding this issue: the legislature, the system, campus-based administrators, faculty, students, or some combination of these groups? Our first finding's blunt simplicity, therefore, surprised us somewhat in light of the preceding review of events. On the surface the chronology would seem to suggest that the limit has been a topic of hot debate and therefore a prominent issue in conversations within the university, the system, and the state, and among those three entities. For the most part, however, a noncampus-based entity (the UNC system, at the

official behest of the legislature) imposed the limit, and campus officials, faculty, and students had then, and have had since, virtually no role in formal decision making concerning this matter. One campus administrator noted that although each institution formally has the power to set its own admission standards, the campuses "were not invited to comment on the implications of the 18 percent [limit]. . . . The debate has been private." That administrator went on to complain, "We are not respecting different missions . . . and we ought to debate it."

But the absence of formal attention to the issue goes beyond the nature of the decision process imposed from the top. UNC-CH faculty and student governance leaders themselves have not addressed the issue at any length in their own internal bodies. Although faculty from the arts and sciences area (which enrolls all UNC-CH undergraduates) regularly brought up their opposition to OOS limits in faculty council sessions, sentiments to at least tolerate the limits were evident in the professional and graduate schools, debate was not extended, and no decisions emerged from council sessions. Perhaps as a consequence most campus constituencies seem to have little awareness of or information about the possible implications of OOS enrollment limitation for future directions of the university. Our UNC-CH respondents attribute the absence of formal debate and action to a variety of causes, including lack of faculty interest in the undergraduate population, perceived inability of campus constituencies to influence the decision, and a general lack of awareness that intellectual quality and the number of out-of-state undergraduates might be linked.¹⁴ Not surprisingly, therefore, even the source of the policy is a point of confusion on the UNC-CH campus. In sometimes vague ways, campus representatives attribute the limit to various noncampus-based sources such as the legislature, the Board of Governors, the system administration, or the system president.

How Have Decisions Been Made?

Each of our five specific findings in this area suggests that Wildavsky's "social-interaction" style has dominated in North Carolina. We found, for example, that *attempts to allow distinctive OOS admission policies for UNC-CH were effectively thwarted by political concerns*. Although Chapel Hill faculty and administration leaders sought to liberalize the enrollment limits for their campus by stressing the special nature of UNC-CH, these efforts failed on political grounds. Questions of interinstitutional equity in the UNC system arose when other institutions also stressed special needs for liberalized admissions. Importantly, predominantly African-American institutions emphasized their distinctive regional and national roles, while institutions near state borders noted

that they would always be especially attractive to close-by students in neighboring states. Relatedly, further concerns regarding liberalizing UNC-CH admissions for OOS students arose from the campus's special place as the state's oldest, largest, and most visible institution. Many North Carolina high-school seniors hold UNC-CH as their first choice for college attendance, and legislators appear to hear more complaints about rejected applications to the Chapel Hill campus than any other. Quite often, such complaints were coming from well-to-do citizens who are parents of aspiring college students. Policymakers were loathe to ignore those complaints while addressing complaints about rejections to other institutions.¹⁵ In the end, faced with a variety of special pleas and appeals from constituents with political leverage, legislators and system leaders opted for an 18% policy standardized across all senior-level public institutions in the state.

Our next finding, like the last, affirmed the centrality of politics in the issue: *no campus constituency has been uniform in their views, and none has mobilized significantly to support one or another view on the issue.* In general, it appears faculty and administrators have tended to oppose the 18% limit. Individual faculty and campus administrators listed for us or for campus publications the following arguments for increasing the limit: admission is currently denied to many bright and diverse students who could "get in anywhere" and would enrich the UNC-CH experience of other students; the state would benefit from the increase in tuition revenue that more out-of-state students would generate (even though the university would not benefit because all tuition funds go into a general system fund); faculty want to teach more capable and well-prepared students and these tend to belong to the out-of-state cohort; many alumni and other donors live out of state and it is in the interest of the university to admit their qualified children; and talented out-of-state students tend to stay in the state and become valuable contributors to a strong economy. Two faculty members noted that more than half of the students in their honors sections were out-of-staters. Another professor wished that the undergraduate population could have a larger international cohort, because in-state students would benefit from exposure to international students. Unfortunately, he noted, the policy severely reduces the university's ability to accept international students, because such students "count against" the 18% limit.

Campus-based respondents also remarked that sentiment to retain the limit is located mainly outside the institution at the system and state levels, stressing that political forces work against admitting more out-of-staters. Several years ago Robert Eubanks, then chairman of the Board of Trustees, captured that view: "I think it's low because Chapel Hill is a

state university and our first service is to the state of North Carolina. It's awfully hard to turn down North Carolina students and ask the legislature to fund UNC" (Cloninger, 1988, p. 1). Legislators, our respondents stressed, favor educating state citizens first, because the lawmakers do not understand the necessary scope of a national research institution and do not want to face voters whose children have been denied admission to North Carolina's most valued institution. More than one campus respondent named the University of Virginia, the University of Michigan, or the University of Wisconsin as institutions to emulate with respect to their higher percentages of out-of-state students. Some mentioned that various campus groups have recommended a higher percentage of out-of-state students for UNC-CH.¹⁶

Yet, it was possible to find support for the limits among both UNC-CH faculty and administrators. Beyond outright support, members of both groups also expressed understanding of the need for the limits from the perspective of state citizenry. That is, although tending to oppose strict, formally imposed admissions limits from a personal or professional standpoint, some respondents noted empathetically that they could understand their genesis and endurance. In this sense, it would be wrong to characterize the faculty and administration as unilaterally opposed to the admission limit.

Like those of faculty and administrators, student views on the limit have been somewhat mixed. On one hand, UNC-CH students polled systematically by the student-government association in 1993 expressed support for the limit on out-of-state enrollment, although not by wide margins,¹⁷ and the UNC-CH student-government president argued forcefully in 1990 against increasing the number of out-of-state students beyond the 18% limit (Pitts, 1990). On the other hand, other student-government leaders have spoken consistently in opposition to the limit. Most recently, in their 1994 assessment of the university (Student Government Executive Branch, 1994), the student government leadership called for raising the OOS admission limits. The students acknowledged that part of the university's reputation for selectivity results from intense competition for out-of-state slots, but they used data from peer universities to conclude that admission standards at UNC-CH were "only mediocre in relation to those at the peer institutions" (p. 39).

As a group, we found our faculty, administrator, and student respondents eager to engage in discussions with us on the OOS issue. As noted in our first finding, however, our respondents for the most part have not discussed the issue frequently among themselves or with colleagues. What is more, it appears that those opposed to or supporting the admissions policy have made few efforts to consolidate their views and pre-

sent a united front. We uncovered no mobilized faculty, administrator, or student interest groups focusing on this question and found no evidence that any of the constituencies had joined forces with others to influence the policy development or implementation. Instead, several respondents remarked on their inability to bring focus to their concerns and their attempts to influence the future.

A further finding regarding the ways decisions have been made was that *the various stakeholders have exhibited dramatic differences in their language use and framing of the enrollment-limit issue*. These differences may be both a cause and a consequence of the lack of communication between campus constituencies and system leadership, noted in our first finding. Here Gumport's (1993) observations concerning language use and position within the university seem to apply. Gumport suggested that those at the top of an institution (both executive administrators and faculty research stars) tend to use language of alteration when discussing how an institution might move from the present into the future. These actors are more likely to imagine a future that is different from the present and, therefore, view the facts that describe today's reality as changing to produce a more favorable future. Those in the middle of an institution (subordinate administrators and faculty possibly targeted for budget cuts) are more likely to use language of accommodation, signaling that they feel less able to control future direction. For the most part, UNC system officials and legislative actors tended to use the language of top leadership, describing the admissions limit more as a means to a desired end, and therefore subject to change, than as an end in itself. In contrast, campus-based constituencies, and even senior campus leaders, tended to use the language of middle groups when they described themselves as powerless to influence future decisions.

For example, a senior system leader observed, "You say cap . . . and we have a guideline. . . . We don't put a cap on [an institution], but it is frowned on [if] they go over their guidelines." According to this respondent, the guideline is looked at every year, and the limit is changeable. Conversely, campus constituencies, even those in senior leadership positions, tended to describe the limit as a "quota" or "cap," calling it a policy imposed upon them with little likelihood of change. Although many faculty favor raising the limit as a means of enlarging the cohort of more highly selected students, they seem to raise this point with little hope of changing the policy. One faculty member remarked, "Typically we would go to a faculty council meeting and there would be a couple of people who would routinely stand up and sass the chancellor about it, like a throwaway line or a throwaway pie in the face. It would happen all the time. . . . There are few places for Chapel Hill faculty

to express their views in the high reaches of the administration here.”

The next finding for the analysis was directly related to the policy literature’s focus on different decision-making styles in public settings: *research-based information has not played a major role in decision-making about this question*. From the start, our analysis was focused on the extent to which North Carolina’s OOS decisions have been based on systematic conceptualizations and credible research-based information. A systematic argument for strict OOS admissions limitations can be made on the basis of the perspectives of politics, finance, and public-welfare economics. An equally systematic argument against those limitations can be based on the perspectives of academics and educational researchers concerning educational quality and the arguments of economists regarding long-term benefits for the state. A variety of theoretical and policy arguments are therefore potentially relevant to the OOS issue, and research relevant to the topic is available or feasible to undertake. Yet, although students and others have occasionally used data to support positions on the issue, the development and imposition of the enrollment limits for OOS students in North Carolina has taken place for the most part without the use of existing theory or research.

Largely disregarded have been potentially useful data on “stay rates” of out-of-state graduates, research on sensitivity to prices among different groups, and the like. Even though most respondents acknowledged Chapel Hill’s prestigious reputation and were aware that enrollment restrictions could affect the ostensibly special nature of the UNC-CH undergraduate experience, few were aware of relevant research on the topic. Rather, respondents noted that information has been used selectively to support preconceived biases. One observed, “Instead of information driving the decision, . . . the bias going into the discussion has formed the conclusion and the figures have been used to support that.” Relatedly, some language used in reports and interviews suggests that decisions have been based less on research and more on emotions and on mythical, or at least untested, assumptions. Although some earlier reports and data bases with quantitative information were available and could have been brought to bear on both sides of the question, they do not appear to have been used significantly by those in a position to influence the decision. In addition, virtually no new analysis was initiated once the question of limits was broached in the state’s policy arena. One respondent told us bluntly that “Too little research was done, and too little presented.” When asked why that might be, one UNC-CH faculty member suggested that whatever guidance might be provided by such analysis was irrelevant to the state legislature, which harbored a deep “suspicion of outsiders.”¹⁸

A campus administrator captured the political logic as follows: "Should there be North Carolina students denied access in favor of out-of-state students? Add to it legislators' children who are turned down. It is one thing to be turned down so we can get more diversity or a star athlete, but for out-of-state it would be worse." Interestingly, although such a zero-sum perspective was often adopted by the legislature and other decision makers, there is evidence that campus spaces were not so clearly limited. A mid-1980s analysis (*The North Carolina Memorandum*, 1986b) suggested that there was at that time substantial excess capacity for students in the UNC system. It could be argued, therefore, that at least at that time, the out-of-state student issue was being considered under a debatable assumption that there were limited spaces to be parceled out between in-state and OOS students.¹⁹

In this context of limited use of quantitative analysis, it is therefore not surprising to find no evidence that the 18% figure chosen for the limit was itself based in any way upon research. Several interviewees referred to percentage as a "magic number" with which politicians were comfortable, and which others felt uncomfortable questioning.²⁰ Comparisons with "flagship" admissions patterns at other states were presented occasionally in newspaper accounts of the time (e.g., Cloninger, 1988), but such data and reasoning do not appear to have been used significantly by decision makers. One UNC-CH administrator and faculty member said he was very uncertain why 18%, and not 10, 20, or 30%, was determined to be acceptable. We could find no firm answer to that question, although UNC System president C. D. Spangler said in 1988 (Cloninger, 1988, p. 1) that the 18% figure "was set after studying the situation and realizing that it was likely the General Assembly would set a quota that would be substantially lower than the Board of Governors wished." It appears, therefore, that the genesis of the number was political.²¹

Given this environment, decision making on the OOS limits appears to have gone forward with little regard for broader or longer-term implications. For example, neither documents nor respondents raised issues related to Astin's recent findings suggesting that the peer group (and thus, the composition of the student body) is the most important influence on growth and development during the undergraduate years (Astin, 1993, p. 398). Most respondents, whether students or faculty or policy-makers, seemed to value the "public ivy" nature of the university's reputation, but they gave little evidence of having considered investigating in any systematic way the educational effects of moves to protect access for North Carolina citizens. What is more, they revealed little awareness of, or expectations about, future directions the limits might take.

When asked to consider the basis on which he makes decisions concerning the system, one senior system leader told us that he hoped that his decisions were not based in either emotion or information, but rather in educational purpose. Although generally supportive of limits, he noted that it would be possible to limit out-of-state students to an extent that the nature of the university would change for the worse. He recalled the 1960s, when racial diversity did not exist on campus: "Students missed an awful lot. We need to make sure that all of our students get the best education. From a public institution perspective, we want North Carolina students to get the diversity [one gets] from having students from other areas and other parts of the world. . . . [The mix] is a very positive influence. . . . To get really good faculty, you need really good students." Thus went an argument for an approach based in educational philosophy rather than information or emotion.

To the extent that educational philosophy guided the policy process, it could be argued that it was a philosophy undifferentiated by institutional mission. A legislative actor told us "When the general assembly looks at this, they are not focused on Chapel Hill; they are looking at arguments that apply to a number of schools." Such an observation suggests that at the highest levels, an institution's mission, its educational goals, and its future quality were not factors in decisions concerning enrollment limits. A UNC-CH campus respondent noted the alarming nature of this perspective. He remarked that the university could become too provincial, and named the University of Virginia as a flagship school with a more liberal limit and one likely to remain more competitive nationally. Another commented that the limits are far too restrictive for UNC-CH's mission: the student body would have to be much more diverse geographically for improved diversity to contribute significantly to the undergraduate experience. With respect to teaching and learning, UNC-CH faculty seemed to agree that strong students and a strong faculty are essential to a rich experience in a research university with national and international aspirations. More than one campus respondent used the term "provincial" when either describing UNC-CH today or projecting a future that could result from narrowly drawn populations of students or faculty.

Our final finding regarding how decisions have been made in North Carolina was that *tuition levels have been a fundamental aspect of the rationale of supporters of enrollment limits*. As the excess of out-of-state tuition over in-state tuition in North Carolina has widened steadily since 1980, the acceptance of more out-of-state students would seem to follow logically for the UNC-CH campus. Four factors have contradicted that connection, however: (1) the ongoing equity considerations

across different campuses in the system (see Effron, 1986), (2) the requirements for low tuition formally built into the state constitution, (3) the fact that, despite the recent rises, out-of-state tuition rates have remained low relative to actual educational costs per student, and (4) the fact that the state sends little of institutions' tuition revenues back to the campuses (they go into the system's general fund account instead). For policymakers, therefore, the perceived net return on admitting OOS students has become less, rather than more, defensible. Legislators as well as system leaders frequently noted that they saw the low tuition paid by in-state students as a tax supplement for those who are qualified; therefore, when out-of-state students take the slot, in-staters are denied (the zero-sum argument discussed earlier). This reasoning was seen as all the more compelling in light of the fact that out-of-state tuition was still below costs, and therefore non-taxpaying out-of-state students were receiving a state subsidy for attendance. Unless and until tuition could be raised to cover the costs of educating them, out-of-state students would remain a poor investment for the state. With this rationale in mind, one legislative actor told us that the enrollment limit issue was "purely economic."

Campus leaders and our respondents generally found these views unpersuasive, however. Several noted that there is educational value in policies providing financial incentives for attendance by non-North Carolinians. The student newspaper (*Daily Tar Heel*, 1992) editorialized, "If UNC wants to keep its place as a top university, it has to be able to attract top students *and* be affordable enough to get them here. . . . Conspiring to drive the 'outsiders' out with a tuition explosion can only harm the University and its standing" (emphasis in the original). The favorable long-term net returns to the state from OOS students remaining in North Carolina were also raised by some. Relatedly, some suggested that, in a funding environment where the university is told to hold the line on expenses and then not allowed to use dollars generated from tuition increases to support the educational program, the dollars from raising tuition to cover out-of-state costs would remain in system coffers. Finally, two of our respondents cautioned that the state should avoid having its university budgets become too dependent on tuition (one noted that to be the case in Michigan and California).

How Have the Enrollment Limits Been Implemented and Institutionalized Over Time?

Central to understanding the results for this question are the underlying values favored at UNC-CH. We found that *once the figure of 18% was delivered from policymakers, campus leaders on the Chapel Hill*

campus worked hard to assure that the actual details of implementation would favor their interests. The determination of the figure of 18% was not the end of the story of enrollment limits, of course. The initial statement of policy was phrased rather generally to refer to “undergraduate students” at each campus. Policy details remained to be worked out, and there remained significant “space” for interpretation on the part of campus leaders. At UNC-CH, administrators met with system leaders to specify the policy in more detail, with the goal of having it implemented in ways consonant with their aspirations for a national and international student body. In the end, they succeeded. One respondent from UNC-CH administration told us:

Being a planning type, I started asking 18 percent of what? It became clear that no one knew. It was a magic number. It was vague. People were very fearful about asking any questions about it. I proposed that we use 18 percent of freshmen. That would move transfers [out of the policy]. There’s a big difference, because you get attrition and replacements.

By pursuing such interpretational tacks and defending them successfully in discussions with UNC system leadership the actual impact of the 18% policy in reducing the enrollment of non-North Carolinians in UNC-CH was lessened. Transfers faced no restrictions as to state residence, and disproportionate attrition among North Carolinians was made more tolerable under the specific implementation chosen. By working at the margins, and in some respects out of the spotlights of media and political publicity surrounding the limits, leadership on the Chapel Hill campus were able to tilt the policy in their favored directions.²²

Implications

As noted earlier, public pressures for improvement in higher education and fiscal pressures in state governments have gone hand in hand in the 1990s. When resources were more plentiful in state postsecondary systems, potential tensions between longer-term goals of public institutions and shorter-term demands on their controlling state postsecondary systems were quieted by the availability of funds for addressing both. As resources have become tighter, taxpayers and their representatives have demanded more direct and obvious benefits from their state postsecondary systems. In the face of political and fiscal pressures, North Carolina, like many states, imposed tight OOS enrollment limits. The limits were adopted directly and swiftly, with little use of research-based information, limited engagement of the various constituencies affected by

the policy, and little consideration of the limits' longer-term educational and social implications. In other words, tensions that might have been raised by a more systematic, inclusive examination of the OOS issue remained largely submerged; rather than being made manifest and perhaps used as a tool for progress, those tensions were kept latent.

Understanding this striking finding requires understanding the nature of political process and accountability in the governance of higher education. It was in the interests of decision makers not only to impose the limits but also to do so rather swiftly without much debate, analysis, and reflection. State legislators' immediate concerns about accountability to North Carolina citizens and UNC system leaders' parallel concerns about accountability to the legislature took precedence over deeper concerns regarding institutional missions and educational values. To bring in the latter issues would simply muddy the waters to no good effect. Though faculty tend to hold dear the longer-term academic issues and to cherish a deliberative, intellectual style of decision making, direct political and bureaucratic action dominated in this arena. Allegiance to hierarchy and patterns of immediate accountability took precedence over debating such seemingly arcane but arguably important matters as the value of geographic diversity on the Chapel Hill campus.²³

Public research universities like UNC-CH are delicately balanced multipurpose institutions located deep in the maw and welter of state politics. Most analysts agree that, ultimately, legislators and governors set policy at state universities (Berdahl & Gove, 1982; Weathersby, 1984). Dealing with that ongoing reality while maintaining traditional academic values can raise a number of problems. Frequently, developments at the state level can threaten institutions' equilibria and productivity as social systems.²⁴ When that happens, relevant tensions can be brought to the surface and analyzed or kept below that surface. When tensions remain submerged, decision processes may be neither fully informed nor effective.

As Kegan (1994) has noted, healthy social institutions require structures of discourse encouraging free debate, and these structures are most valuable when they support useful change. Within such structures, informed actors are encouraged to air the natural tensions that exist among them and to use these tensions as tools for progress.²⁵ The choices facing states, postsecondary systems, and universities today require that they use all available tools to their fullest advantage as resources. Lack of exchange across and within university constituencies can be seen as a lost opportunity for informed debate that would exploit the potential value of exploring tensions. The blurring of tensions can perhaps be helpful when resources are robust, but the continuation of latent, in-

choate tensions in leaner times may be less productive. Perhaps tension made manifest can become one of the tools higher education uses to craft its future; otherwise, in an environment that demands the best use of all resources, a potential source of capital might be denied.

The history of the North Carolina out-of-state student issue provides a case in point. What might seem to be a rather straightforward state policy matter is in fact loaded with long-term gravity regarding the undergraduate experience at UNC-CH, the university's faculty recruitment efforts, and perhaps ultimately, its national and international credibility and reputation.²⁶ Questions of the breadth and stability of UNC-CH's mission seem to have been decided implicitly through political and bureaucratic means without full debate and understanding of the implications involved. North Carolina system leaders have tended to see the OOS issue as a politically and economically clear-cut question, and they have neglected to use the natural tensions involved in the issue to engage parties in the creative thinking and debate surrounding the UNC-CH mission. By choosing to address short-term accountability pressures, the leadership may be missing creative, productive solutions for the longer term. In the process, they may also be sacrificing opportunities to build structures that can serve well for other issues.

From a theoretical perspective, the findings of this study suggest the difficulties facing multipurpose organizations. The multiple purposes served by public research universities, such as UNC at Chapel Hill, can come into conflict with each other in times of duress. For example, conflicts can arise between a university's goal of developing as a globally recognized center for research and teaching and its goal of educating and otherwise serving the citizens of its own state. Such conflicts can affect public research universities' dealings with state university systems' central offices, with other state postsecondary governing bodies, with state legislatures, and with alumni. In addition, the conflicts may affect internal interactions among an institution's own faculty, staff, and students and may contribute over time to institutional change and redefinition. As Breneman (1993) notes, such conflicts often center on local versus broader aspirations, and in tight times cosmopolitan ideals often lose. There is both a scholarly and a practical need to investigate how these kinds of conflicts over institutional purposes arise and are addressed in state postsecondary systems.

In particular, there is a need to examine the role played by research-based information in resolving conflicts among institutional purposes. Given the widespread and natural desire among analysts that decisions over such conflicts evince "procedural rationality," it is striking that, in the present study, we found little use of research-based information and

certainly no evidence of what Hearn and Corcoran (1988) termed "dialogues of conflicting data claims." Those authors and others (see Terenzini, 1995; Rhoades, 1995) have noted that institutional research and policy analysis on campuses are proliferating, but the understanding and use of the acquired information are frequently imperfect and contested. Often, different groups use analytic techniques as they vie for the accepted claims of fact in a dispute. In North Carolina's OOS issue, however, information played virtually no role; instead, a seemingly important policy issue was resolved almost entirely without resort to comprehensive analysis.²⁷ Such a finding fits into some earlier research on state settings (e.g., Trombley, 1993) but does not mesh easily with the "proliferation argument" noted above. We need better understanding of when and how information and analysis are used in postsecondary settings.

In closing, it is important to stress again that the focal issue of this analysis is not what is right and wrong in North Carolina's specific OOS policy. That remains unclear. From the intellectual-cognition perspective, although geographic diversity is a palpably good thing and this diversity is limited by the North Carolina policy, any OOS policy has to be analyzed in the broader perspective of relative costs and returns, with particular attention to the variety of good things that might alternatively be purchased with taxpayers' funds in that state. Such analysis is beyond the scope of this article. From the social-interaction perspective, what has happened in North Carolina fits well within Wildavsky's (1979) notions of political rationality. Sophisticated and persuasive political reasoning for the OOS policy was supplied to us by several of our respondents. Policies produced without systematic empirical analysis are not by definition "irrational." Indeed, policies produced *with* empirical analysis are not by definition "rational," particularly when there is reason to question the value positions imbedded in the analytic framework.²⁸ For example, to the extent a detailed analysis might point decision makers toward a more selective and more geographically diverse University of North Carolina at Chapel Hill, to the extent such a campus would also be less welcoming for North Carolina students from disadvantaged backgrounds, and to the extent such concerns were not encompassed in the analytic framework, reasonable questions may be raised about the quality of the institution and the appropriateness of its use of taxpayer resources.²⁹ Thus, we do not argue here for a particular point of view regarding North Carolina's OOS limits.

Instead, our focus has been on decision processes and structures, and especially on the ways policy decisions are made regarding such issues as OOS enrollment limitations. State-level decision making inevitably involves attention to political reasoning, bureaucratic structures, time

constraints, and the nature of pressing public concerns. Ideally, it also involves the use of systematic information-rich analysis. The latter has apparently been somewhat lacking in the North Carolina decisions about out-of-state students. Never brought to the surface there were significant tensions that might have been productively highlighted and examined as the state confronted its policy challenges. We suspect that this pattern is not untypical of public policy making in higher education nationwide. Tensions left latent can reflect opportunities lost.

APPENDIX:

The Interview Protocol

Introduction to be read to respondents: We are studying the ways UNC-Chapel Hill has dealt with the public debate over the past few years concerning the admission of out-of-state students on this campus. We are very interested in learning your perceptions of the history of this debate, the central actors in the debate, the arguments emerging in the debate, and its effects on the campus, the system, and the state. With that in mind, we have a series of questions we would like to pose for you. We encourage you, however, to express any thoughts you might have on the topic, going beyond the particular question at hand. In other words, we have no interest in limiting what you might be able to tell us on this issue. All told, the interview need not take more than thirty minutes of your time. We can certainly stay longer, though, if you have more that you wish to tell us. After the interview, we will send a summary of our meeting to you to make sure we have captured your comments accurately.

- Question 1:* How would you characterize the general history of the debate since 1980 on the admission and enrollment of out-of-state undergraduate students at UNC-Chapel Hill?
- Question 2:* Who have been the central actors in the debate?
- Question 3:* Can you identify any strikingly singular events in the course of the debate? For example, do you recall any watershed moments in which the debate took a dramatic turn, or became more visible, or became more heated?
- Question 4:* Could you tell us the two or three arguments most frequently made for imposing stricter limitations on the admission and enrollment of out-of-state students?
- Question 5:* Could you tell us the two or three arguments most frequently made against imposing stricter limitations?
- Question 6:* One might assume that people outside the university largely favor limiting the proportion of out-of-state students admitted, while those inside largely favor maintaining a healthy proportion of such students in the undergraduate student body. How accurate is this assumption?
- Question 7:* What role has information, particularly research-based information from institutional researchers and policy analysts, played thus far in the debate?

Question 8: What has been the influence of the debate thus far on:

- a) undergraduates and the undergraduate experience at the university?
- b) alumni and relations with alumni?
- c) faculty and faculty recruitment?
- d) relations between the campus and leadership of the UNC system?
- e) relations with the state legislature?
- f) relations with the general public, including prospective students and their parents, in North Carolina?
- g) relations with the general public, including prospective students and their parents, outside North Carolina?
- h) relations with prospective donors to the university?
- i) relations with academic colleagues and associations around the nation?

Question 9: From your own perspective, what is the relationship between the admission and enrollment of out-of-state students at UNC-Chapel Hill and:

- a) the quality of the undergraduate experience at the university?
- b) other aspects of the quality of the university?
- c) the reputation of the university in the state?
- d) the reputation of the university nationally and internationally?

Question 10: As you have followed this debate, what have been the most important sources of information for you?

Question 11: Please suggest to us any documents, or sources of documents, which you feel would help us in examining this debate.

Question 12: Please give us the name of anyone else who you believe would be helpful to us in examining the debate.

Question 13: How sensitive are you to the prospect of your name, or that of the institution or system, being identified in any publications stemming from our study?

Question 14: Is there anything else you would like to add regarding this issue or our study?

Thank you very much.

Notes

¹For example, to fund access for undergraduates, some states are pressuring their public universities to forego graduate education and research (Breneman, 1993).

²For example, Virginia has been actively debating the issue (*Washington Post*, 1993), and Georgia recently substantially raised tuition for out-of-state students (Walker, 1995). Georgia ranked lowest in the nation in in-state tuition rises over the years 1990-1995 (only 23%), and currently ranks 38th in out-of-state tuition. The changes in out-of-state tuition rates apparently represent an attempt by policymakers to limit the extent to which Georgia's low tuition rates would be extended to those from outside the state.

³Respondents to a national survey of 250 college presidents, state governors, and other educational leaders perceived that North Carolina was operating the nation's second-ranked public higher-education system, following California and ahead of Michigan, New York, Minnesota, and several others frequently mentioned as excellent (Gilley,

1991). The specific question was: "Which states do you admire most for the overall quality of public colleges and universities?" The survey, conducted by the Center for Policy Studies in Education at George Mason University, is described in detail in Gilley (1991). For a journalistic perspective on the system's strong reputation and the difficulties of maintaining that reputation, see two articles by Jaschik (1987, 1989).

⁴See Finifter, Baldwin, & Thelin (1991). For a more general discussion of this tendency, see Kingdon (1984).

⁵Specifically, he argues that a significant community college fee increase was adopted as part of a last-minute budget agreement between Governor Pete Wilson and state Democratic leaders, without attention to relevant research data, without philosophical discussion, and without meaningful input from education leaders. The fee in question was for students attending community college classes although already holding the baccalaureate degree. According to Trombley (1993, p. 2), it was adopted because dominant political leaders felt that college graduates taking classes were mainly "rich housewives" who wanted to study French so they could converse with waiters on their next European vacations." Information contradicting that view was apparently never considered by lawmakers.

⁶That is, they are "institutional" questions, in the larger sense of the word.

⁷Not all problems in social life are best resolved through making manifest what has been latent, of course (Merton, 1968).

⁸Yin (1989, p. 89) notes that those interviewed in the open-ended style may be considered "informants," while those interviewed in the focused style may be considered "respondents." In Yin's sense, our interviewees were clearly "informants" as well as "respondents." We use solely the latter term here, however.

⁹Graham (1989), Hearn & Griswold (1994) and Hearn, Griswold, & Marine (1996) review the emergence of this form of governance and investigate some of its policy implications. See McGuinness (1988) for a summary of state governance arrangements around the nation. Graham (1989) concludes with an impassioned argument against the superboard form of governance, especially when it encompasses research universities such as UNC-CH.

¹⁰Among the 16 voting board members elected every two years, the legislators must always elect at least 2 women, 2 members from racial minorities, and 2 members of the largest minority party in the General Assembly. The Board also has nonvoting members, including the president of the state student-government association, former state governors, and former Board members (for one term after serving).

¹¹Specifically, any excess of a campus's actual tuition revenues over those previously forecast at the system level resides in that campus's accounts for the year in question, but is deducted from the following year's state funding for the campus. Thus, the net return to the campus for exceeding enrollment projections is virtually zero.

¹²An unofficial limit of 15% was in place before that time, but that limit had many exceptions and was never enforced.

¹³*Daily Tar Heel*, 1992.

¹⁴For example, one faculty member observed that faculty would get interested only if the quota were extended to the graduate student population, and she saw little possibility of this happening. In a separate interview, however, a legislative actor remarked that such discussions were underway at the state level; a quota on out-of-state graduate students could become a reality.

¹⁵When asked by fellow Board of Governor members how to react to requests to help secure admittance to UNC-CH for the underqualified children of friends, one long-time board member responded: "I just tell them to get friends with smarter children."

¹⁶It is perhaps related (and certainly intriguing) that faculty respondents often discussed North Carolina as if they were outside observers rather than tax-paying citizens, while legislative and system officials tended to emphasize readily their role as participating citizens. For example, one faculty member commented that he had "watched state

processes" for 26 years and referred to North Carolinians as "they" throughout the interview. In contrast, a longtime member of the Board of Governors portrayed himself as being very active in the life of the state and used "we" consistently.

¹⁷Students were given the following survey item: "UNC currently requires that 82% of each incoming freshman class be from North Carolina. Do you think there should be a greater percentage of students admitted from out of state?" Just over half the respondents (57%) answered no (Student Government Executive Branch, 1994). Of course, this student support may be an artifact of the limit itself.

¹⁸That same faculty member concluded simply, "The university is more cosmopolitan than the state legislature."

¹⁹The quality of educational experiences at UNC-CH might suffer by larger class sizes and increased use of existing facilities, however.

²⁰See Feldman & March (1981) and Alonso & Starr (1987) for intriguing discussions of the special power of certain numbers in organizations.

²¹Interestingly, recent debates on the subject in Virginia have involved differing interpretations of the data from North Carolina on its OOS limits.

²²The imposition by largely non-educational leaders of the 18% OOS limit in North Carolina, and the subsequent, actively tendentious interpretation of that limit by academic leaders, have analogies in other states' policy arenas. Little's (1995) study of Georgia's massive lottery-funded HOPE scholarship program for able students found that political leaders in Georgia devised this major 1990s educational policy move without input from academic leaders, then dealt with the policy details as well as the strong reactions of affected colleges and universities later. After the initiative, in both cases, it was left to academic leaders to manage the new policies and programs and shape them at the margins. The appropriate metaphor might be "Ready, fire, aim."

²³In a recent, perceptive analysis, Banta et al. (1996) present further evidence that making an effective response to demands for system accountability in the short term may be quite distinct from actions making an effective response to broad campus-level missions over the longer term.

²⁴Cole (1993) provides a provocative discussion of balance and equilibrium in university governance.

²⁵Kegan (1994) has termed this "the creative use of conflict" in communities.

²⁶In a sense, the OOS issue is a "garbage-can" issue (Cohen & March, 1986), in which a variety of quite fundamental questions concerning universities are involved.

²⁷For example, although the North Carolina press occasionally reported quantitative data on OOS admissions issues, it was largely summary or inelegantly comparative data, and there was little attention to nuance. This pattern echoes findings from Chance's (1993) study of the coverage of postsecondary issues in four major California newspapers. He found that the press in that state has tended to have an implicit deference to higher education and for that reason tend to avoid consideration of profound issues in higher education. Instead, they disproportionately tackle specific, more glamorous issues such as budget scandals, presidential missteps, student-loan defaults, faculty productivity, protests over tuition, student and faculty cheating, and the like.

²⁸For example, Slaughter (1995) has cautioned against idealizing the notion of systematic analysis, warning that pursuing the usual "rational" criteria for decision making in academic policy (e.g., comparing programs' centrality, quality, and costs) can sometimes have deleterious impacts on diversity and equity on campuses. Slaughter focuses in particular on retrenchment efforts, but her points apply to broad policies like statewide admissions criteria as well. In a similar vein, Rhoades (1995) suggests that academic decision making often suffers from a rationalistic conception of information that focuses on the need for more information and less politics. Perhaps the caution one should use in pursuing the "more information is good" argument is best reflected in lines from T. S. Eliot's 1934 play "The Rock" (p. 7): "Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?" As Cleveland (1985) notes, a glut of information does not portend knowledge, nor does it portend wise decisions.

²⁹It is instructive to note, as one example of the difficulties of framing this issue squarely on equity grounds, that charges of racism were raised implicitly and explicitly by people on both sides of the issue. Those opposing the 18% limit noted that historically black public institutions were among the institutions importing the highest proportions of OOS students. Those supporting the limit raised images of white, affluent prep-school graduates from out of state taking the place of talented in-state African-American students at UNC-CH.

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Undergraduate Political Attitudes

Peer Influence in Changing Social Contexts

Students are influenced in a number of ways by the colleges and universities they attend. Many of these influences, of course, are intentional and planned. Higher education institutions and their faculties, for example, develop formal academic programs that are designed to promote student learning and development in specific areas (Stark & Lattuca, 1997). In contrast, other outcomes, even those that may be tied to an institution's mission, can be produced by unstructured and informal experiences of students. Student attitudes and values are examples of such outcomes, and an abundance of research evidence shows that student attitudes and values are influenced during college (Astin, 1993; Pascarella & Terenzini, 1991). Most colleges and universities, however, make little formal effort to shape student values, in spite of general agreement about the need for higher education to do so (Pascarella & Terenzini, 1991). But if colleges and universities do not typically organize themselves to shape attitudes and values, how are outcomes in this area produced?

Socialization is the most commonly offered explanation for the influence of college on student attitudes and values. Socialization is the process through which individuals acquire knowledge, habits, and value orientations that will be useful in the future (Brim, 1966). In effect, the socialization perspective suggests that students balance their own predispositions and goals with normative pressures generated by various groups in changing and maintaining their attitudes, values, and beliefs (Weidman, 1989). This involves organizational, interpersonal, and in-

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trapersonal processes that occur in both formal and informal settings (LeVine, 1966; Weidman, 1989; Weil, 1985).

A number of factors make it important to understand how socialization processes influence student attitudes. From the perspective of practice, higher education is increasingly being held accountable for the outcomes it produces, even if these outcomes occur completely independently of any formal institutional action. From a research perspective, this is also an important issue to understand because of the tight interconnections between individual change and social change, a reality that presents researchers with a multitude of methodological and theoretical challenges (Alwin, Cohen, & Newcomb, 1991; Astin, 1993; Gurin, 1971; Pascarella & Terenzini, 1991). Linkages among individuals, social institutions, and general social forces make the unique identification of causes and effects problematic. Moreover, interpretational challenges are created by disciplinary boundaries that have led to the observation that "theories about social change generally ignore processes of individual change, and theories of human development and change tend to ignore issues of social change" (Alwin & Krosnick, 1991, p. 170).

Set within this context, the central goal of this study is to examine the changing impact of college on student attitudes and values using a socialization framework. By examining college influences across different time periods, I hope to illuminate the interconnections between college effects and those that are related to general social trends. I use the model of undergraduate socialization provided by Weidman (1989) as a heuristic framework for studying how the normative contexts of college campuses, students' interactions with peers, and changes in the larger social context serve to influence the attitudes of students, net of precollege and college characteristics.

Liberalism, College Impact, and Social Change

To address the general problem of socialization processes I examine the specific case of the development of political orientations among undergraduate students. Defining student political orientations in terms of liberalism and conservatism has been a challenge noted since the earliest research on college impact. For example, in his early report on data collected from Bennington college students Newcomb (1943) noted a great variability in the way the term conservative was defined in the existing research literature. A useful conceptual distinction can be made between political self-identification (i.e., liberal versus conservative) and political attitudes (i.e., level of agreement with specific issues), but this does

not appear to be an important practical distinction from the perspective of college impact. Recent inquiries have shown similar patterns of college impact across both domains (Schiff, 1993; Dey, 1996).

Despite these definitional challenges, political attitudes are a particularly interesting and important case to consider from a socialization perspective for two main reasons. First, research on the relationship between education and social and political liberalism has yielded what has been described as "one of the most stable and consistent findings in empirical social research of contemporary American society" (Weil, 1985, p. 458). Numerous sociological studies have documented that educational attainment is positively associated with liberal views (Hyman & Wright, 1978; Hyman, Wright, & Reed, 1975; Lipset, 1981), and a large body of previous research has suggested that college promotes political liberalism among students (Astin, 1977; Bowen, 1977; Feldman & Newcomb, 1969; Pascarella & Terenzini, 1991).

Second, social and political attitudes have changed in complex ways since many pioneering college impact studies were conducted in the 1960s and 1970s. Research shows a complex pattern of social changes related to liberalism in the general American population, with a clear leveling-off of most earlier liberal trends but no strong general conservative trend (Davis, 1992; Smith, 1990). Complex patterns are also evident among higher education student populations: there was a relative decline during the 1980s in the number of self-identified liberal students, and an increase in conservative positions on crime, but a decrease in liberal positions on personal freedom (Dey, Astin, & Korn, 1991). Research on college faculty, however, shows that the political nature of faculty has changed little in recent decades in absolute terms, although it may appear to be more liberal due to changing social norms (Hamilton & Hargens, 1993; Dey, 1995). These kinds of social changes are important, because they represent ways in which campuses are changing, not only in terms of the external environment, but also in terms of the peer-based environments that individual students experience. Previous research has suggested that peer groups have important influences on student attitudes (Astin, 1993; Dey, 1996; Feldman & Newcomb, 1969; Pascarella & Terenzini, 1991), and these intracollege influences may serve as reinforcing or countervailing forces relative to pressures generated by the general society.

Research Strategy

In order to examine peer and social influences on the political orientations of undergraduates, I use data from four separate panel studies of college students collected between 1966 and 1991. I use regression

analyses derived from the socialization framework of Weidman (1989) to examine the relative impact of peer context on student attitudes in different eras. Weidman's framework is very useful in identifying and organizing important elements that influence the socialization process, and it emphasizes the normative influences that affect students through formal and informal social processes. In addition to identifying peer normative context as a potentially important influence, an element of Weidman's conceptual framework that is particularly salient for this study is the degree to which students are exposed to other students through their continuing enrollment. This is an idea that is echoed in various ways by other scholars who do related research (Alwin, Cohen, & Newcomb, 1991; Astin, 1993; Feldman, 1972; Feldman & Newcomb, 1969; Wallace, 1966).

In addition to analyses based on the complete regression model, I computed a smaller regression model based on data from the earliest (1966–1970) and most recent (1987–1991) longitudinal data sets. This analysis was conducted to model statistically the relative influence of peer and social context on student political orientation. This issue has been discussed previously at a conceptual level but has not been modeled statistically in the past.

I expected to find the following:

1. Changes in student political orientations during college are consistent with more general social trends.
2. Peer normative contexts significantly influence student political orientations, net of precollege and other college characteristics.
3. Social context significantly influences student political orientations, net of precollege characteristics, college characteristics, and socialization effects.

Methodology

In undertaking this study, I used data collected through the Cooperative Institutional Research Program (CIRP), a continuing program of research that is sponsored by the American Council on Education and the Higher Education Research Institute (HERI) at the University of California, Los Angeles. The CIRP freshman survey program annually collects a broad array of student background information using the Student Information Form (SIF). Samples of SIF respondents are then followed-up at various points of time using the Follow-up Survey (FUS) instrument, and these data are used in combination to assess longitudinally the impact of college on students.

The data for this study are drawn from four separate longitudinal data sets collected in different social eras. Although each of the data sets is different in size and scope, they all employ a multi-institutional longitudinal design that tracks a large, representative sample of college students. Table 1 provides a basic summary of the characteristics of these data sets, while information on the specific variables used in the study is given below.

Measures and Analysis

Each of the four data sets is based on surveys that included an item measuring students' self-identified political orientations, which served as the dependent variable in each of the analyses. Unfortunately, not all of the items needed for the analysis had identical wording across all four surveys, but I judged them to be similar enough to be useful in the analysis. For example, the political orientation question in the 1966–70 data set asks students to rate their “political liberalism” on a five-point scale, from bottom 10% to top 10%. In the remaining data sets students were asked to rate themselves on a five-point scale, from “far left” to “far right.” Although using different measures for the same construct introduces some method variance into the analysis, there is evidence to support that these measures are related; the 1971 CIRP survey included both of these items and reveals a strong correlation between them ($r = 0.66$, $p < 0.001$).

I conducted a multiple regression analysis using the same model for each of the four data sets. For each of the analyses the independent variables were entered in the prediction equation in a blocked fashion, where the blocks were determined by the nature of the variables. These variables and the blocking scheme used in the regressions are shown in Table 2. As shown in Table 2, the student's political orientation upon entry into college is the sole variable in the first independent variable block, and it is expected to be the most important control variable in the analysis.

TABLE 1
Data Sources

Year of		Number of		Methodological Reference
College Entry	Follow-up Survey	Institutions	Students	
1966	1970	213	25,327	Astin, 1977
1971	1980	484	10,326	Astin, 1983
1983	1987	341	3,897	Hurtado, Astin, Korn, & Dey, 1989
1987	1991	379	5,615	HERI, 1992

TABLE 2
Variables Used in the Regression Analyses

Block 1: Political orientation pretest (from SIF freshman survey)
Block 2: Individual control variables (from SIF freshman survey)
Gender (1 = female; 0 = male)
Race (1 = white; 0 = nonwhite)
High-school grade point average (7-point scale)
Estimated parental income (14-point scale)
Parental education (average of mother's and father's education, based on a 6-point scale)
Block 3: Institutional control variables
Number of years attended (Follow-up survey item)
Institutional type and control (Dichotomous variables: Public university, private university, public four-year college, private four-year college, public two-year college)
Institutional selectivity (based on average composite SAT score of entering freshman class)
Historically black college (1 = yes; 0 = no)
Women's college (1 = yes; 0 = no)
Block 4: Socialization measure — Peer normative context (institutional mean political orientation pretest, aggregated from SIF)

The second block of independent variables contains more general control variables representing student background characteristics. I limited myself to measures that I believed to be likely influences on the basis of previous research, including student race, gender, and high-school grade point average. Because previous research has suggested that social class is related to political orientation (Jackman & Muha, 1984), I also included measures of family income and education.

The third block of independent variables consists of measures of institutional context. Selectivity, institutional type, and control of the student's freshman college are included as control variables. The student's exposure to the college environment is measured by the number of years the student attended his or her freshman college.

The fourth block of independent variables is the student's peer normative context. The sole variable in this block is constructed by aggregating the political orientation variable from each of the freshman surveys at the level of the institution. The institutional mean political orientation that results from this aggregation procedure thus represents the degree to which each institution in the data set tends to liberal or conservative as defined by the students who enroll as freshmen.

I conducted a fifth regression analysis using only the earliest (1966–70) and most recent (1987–91) data sets in order to model statistically the influence of changing social context. I chose these two data sets because they both cover a four-year time span and because they are the most varied in terms of social context (i.e., sharply increasing liber-

alism in the first case and a leveling-off of liberalism in the second). In order to conduct the analysis properly, I made a number of necessary modifications to the data sets. First, I combined cases from both data sets and then added a variable to indicate which longitudinal data set contributed the case to the combined data set (coded 1 = 1966–70, 0 = 1987–91). This new variable thus represents entering college in an era of increasing liberalism. Since the 1966–70 data set had many more cases than the 1987–91 data set (25,300 vs. 5,600), I applied a weight to the earlier data set so that it would appear to the regression software to be equal in size to the more recent data set. In addition, inconsistencies in question wording and data coding forced me to eliminate the income, parental education, and years attended measures from the regression analyses.

In each of the multivariate analyses, I replaced missing data with the sample mean for all variables except those that serve as pretest (block 1) or posttest (dependent variable) measures; cases with missing data on these types of items were deleted from the analysis.

Limitations

In addition to those noted above, several limitations must be remembered when interpreting the results presented below. To begin, as defined here, the normative context is represented by the global institutional context as derived from entering student data. More precise ways of identifying a student's normative environment have been employed in previous research (e.g., Clark & Trow, 1966; Rossi, 1966; Wallace, 1966). Unfortunately, such approaches are impossible, given the structure of the data analyzed here, and are, under any circumstance, difficult to implement in large-scale multi-institutional studies. Nevertheless, such approaches might be useful to consider in future data collection efforts. Another concern related to an institution's normative context is that data on faculty attitudes are unavailable, yet have been shown to be influential in shaping student attitudes (Dey, 1996).

This study is also limited from a statistical perspective in that it ignores the fact that the students in this study are clustered in institutions rather than being independent of one another, as one would find in a truly random sample. Newer techniques, such as hierarchical linear modeling (Bryk & Raudenbush, 1992), might be employed as an analytical technique on other, more amenable, data sets. The traditional linear models that are commonly used in higher education research — and are employed in this study — ignore these realities and rest imprecisely on the assumption of purely random sampling. Hierarchical linear modeling has led to many interesting insights into the effects of precollegiate

schooling (Raudenbush & Willms, 1991) and may well do the same for research on postsecondary education. Unfortunately, the structure of the data analyzed here do not permit the use of such approaches.

A final limitation in this study relates to the problem of survey nonresponse. Although this is problematic in most survey-based research, it is perhaps more evident here due to the fact that the multiple data sets are being used and response rates vary across them. For example, response rates for the earlier data sets range from 65% to 40% (Astin, 1977), whereas the most recent data set had a response rate of 21% (HERI, 1992). Weighting strategies are sometimes employed as an effective way of addressing nonresponse problems in longitudinal research, but this strategy cannot be used in the present study (corrective weights were not available for the earliest data sets used in the analysis, nor could they be created using the currently available versions of the data files). However, this limitation may not be a critical concern for the multivariate analyses. I performed weighted and unweighted regression analyses on the two most recent data sets, and these analyses yielded comparable results, which is consistent with previous methodological research (Astin & Molm, 1972; Dey, 1997). Rather than applying corrective weights to only two out of the four data sets, I chose to be consistent and conduct all final analyses unweighted.

Results

Before examining the regression results, it is important to understand the basic patterns of change in the political orientations of students over time. This information is shown in Table 3 and in Figure 1. Table 3 shows how students changed between each of the four sets of surveys used in this study. The results for the earliest cohort show a marked trend for students to become more liberal: the percentage who rated themselves above average or greater in political liberalism rose from 22% to 39%. In contrast, the students who entered college in 1971 became less liberal by the time of the follow-up in 1980. The two most recent surveys show a net increase in liberalism but one that is much more modest in magnitude.

It is important to remember that these are simply patterns of change across each of the samples as a whole; they do not necessarily imply that college caused the observed changes. Figure 1 underscores this point by showing that these changes are generally consistent with those found in other social surveys. In addition to showing the changes between pre- and posttest in students' political orientations (solid lines, based upon the assumption of linear change between pre- and posttest), changes in

TABLE 3
Change Over Time in the Follow-up Survey Cohorts

A. STUDENT SELF-RATING OF POLITICAL LIBERALISM

Cohort	Year	Response Categories				
		Lowest 10%	Below	Average	Above	Top 10%
1	1966	6.4	21.4	50.1	19.2	2.9
	1970	6.1	17.3	37.6	31.0	8.0

B. STUDENT SELF-RATING OF POLITICAL ORIENTATION

Cohort	Year	Response Categories				
		Far right	Conservative	Middle-of-the-road	Liberal	Far left
2	1971	0.6	13.9	43.0	39.1	3.5
	1980	0.5	26.0	41.8	29.0	2.7
3	1983	0.9	18.6	59.1	20.0	1.4
	1987	0.8	25.6	45.3	27.0	1.3
4	1987	1.1	21.4	52.7	22.6	2.2
	1991	0.7	27.0	43.9	25.9	2.5

political orientation across different cohorts of college students and adults are shown in Figure 1. The lines marked with the C indicate how political orientations have been changing among college freshmen as measured by the CIRP freshman survey (Dey, Astin, & Korn, 1991), while the lines marked with the G are from the General Social Survey (GSS; Davis & Smith, 1992). The patterns show that changes among students during college are generally consistent with changes in the external social context, and this result is an important demonstration of the interconnected nature of social and collegiate influences. Although some of the observed changes may well be due to college impact or maturation effects, the consistency suggests that students are not immune to larger social and political forces, and this effect needs to be carefully studied.

Turning now to the multivariate analyses, the complete regression models for each of the four data sets are shown in Table 4. The regression models explain between 14% and 19% of the variance in posttest political orientation (with a mean R^2 of 16%).

The first three regression blocks are intended primarily as statistical controls but nonetheless provide some interesting information. As expected, pretest political orientation is the best predictor of posttest political orientation in each of the data sets, with the strength of relationship increasing slightly over time (i.e., $\beta = 0.26$ in 1966–70 vs. $\beta = 0.34$ in 1987–91). Gender was a significant predictor in all of the equations, but

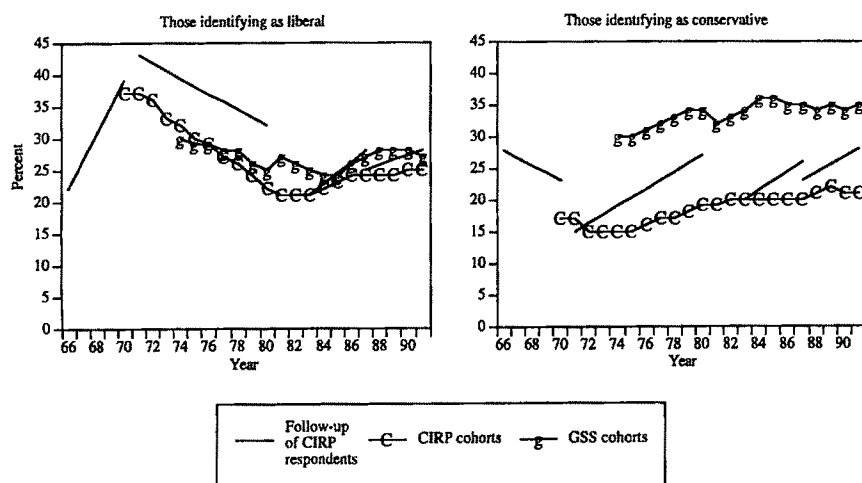


FIG. 1. Trends in Political Self-Identification, 1966–1991

TABLE 4

Standardized Regression Results Prediction Political Orientation for All Four Cohorts

	Longitudinal Data Set			
	1966–70	1971–80	1983–87	1987–91
Pretest orientation	0.26***	0.26***	0.29***	0.34***
Gender (female)	–0.07***	0.06***	0.05**	0.08***
Race (white)	–0.01	–0.10***	–0.06	–0.04
High-school grades	0.04***	0.00	0.00	0.00
Income	0.03***	–0.01	–0.03	–0.06***
Parental education	0.01	0.01	0.04	0.06***
Years attended	0.01	0.00	–0.02	–0.03
Public university	0.03	0.00	0.03	0.04
Private university	0.03	–0.01	0.02	0.06
Public four-year	–0.01	0.04	0.05	0.04
Private four-year	0.04	0.03	0.09	0.10
Public two-year	0.02	0.03	0.05	0.03
Historically black college	0.03***	0.04***	–0.01	0.03
Women's college	0.02**	0.00	0.00	0.01
Institutional selectivity	0.08***	0.08***	0.08***	0.04
Peer normative context	0.12***	0.18***	0.16***	0.14***
Multiple R	0.38	0.42	0.38	0.44
R Square	0.14	0.17	0.15	0.19
Adjusted R Square	0.14	0.17	0.14	0.19

*** $p < 0.001$. ** $p < 0.01$.

the direction of this relationship reversed during the period under study. In the earliest data set the relationship indicated that women were more conservative than men, but the data in the 1970s and after show women as being more liberal. This pattern clearly suggests the influence of the women's movement on political orientations. The other student characteristics are less consistent predictors of posttest political orientation, but it is interesting to note the relatively large coefficient associated with race in the 1971–80 data set ($\beta = -0.10$, $p < 0.001$). This association suggests that whites became much more conservative between the pre- and posttest (relative to students of other races), a finding that may help explain the changing political nature of the era (which culminated in the election of Ronald Reagan in the 1980 presidential election).

Significant results related to institutional characteristics are less common and also less consistent. Institutional type and control, for example, does not appear to be associated with student political orientation, nor does exposure to the campus environment as measured by the number of years attended. Attending a historically black college is associated with more liberal positions in the first two data sets but not in the most recent surveys. Students at more selective institutions tend to show stronger gains in liberalism, with the exception of the most recent survey. Early research has also shown a positive relationship between selectivity and student liberalism (Astin, 1977).

Turning now to the question of socialization effects, the results show that net of other influences, peer normative context has a strong and consistent influence upon the development of student political orientations. Student political orientations change in the direction of institutional norms so that students attending liberal colleges become more liberal over time, whereas those attending conservative colleges become more conservative. The strength of the relationship is equivalent across the four data sets and shows no obvious trend over time. This pattern is consistent with earlier research (Dey, 1996).

The fifth regression analysis was conducted using only the earliest (1966–70) and most recent (1987–91) data sets and is summarized in Table 5. The goal of this final analysis is to provide direct evidence of the influence of the larger social context. Although inconsistencies in question wording forced me to use a reduced number of variables in the regression analysis, the model is sufficiently developed to serve the primary intent of the analysis.

Focusing only on the most salient variables in the regression, the results show that the social context variable is a significant predictor of student political orientation ($\beta = 0.14$, $p < 0.001$). In addition to social context, peer normative context is also a significant predictor ($\beta = 0.16$, $p < 0.001$). Taken together, these results show that social context is just

TABLE 5

Regression Results for the Social Context Analysis (1966–70 and 1987–91 Cohorts Only)

	β
Pretest	0.29***
Gender	0.00
Race	-0.02
High-school grades	0.02
Public university	0.02
Private university	0.03
Public four-year	0.00
Private four-year	0.05**
Public two-year	0.01
Historically black college	0.04***
Women's college	0.00
Institutional selectivity	0.07***
Peer normative context	0.16***
Social context	0.14***
Multiple <i>R</i>	0.40
<i>R</i> Square	0.16
Adjusted <i>R</i> Square	0.16

*** $p < 0.001$. ** $p < 0.01$.

as important as peer normative context in determining changes in the political orientation of students. It is important to note that the social context influence is statistically independent from that which is associated with peer normative context. This can be seen through a comparison between the predictive ability of peer context in each individual year (Table 4) and the combined analysis (Table 5), which shows that the strength of the peer context measure is not noticeably reduced by the inclusion of the social context measure. The influence of social context has been discussed conceptually but not studied empirically in the past, and these results suggest a need to consider explicitly such external influences in future research.

Conclusion and Discussion

The goal of this study was to examine the development of undergraduate political orientations using a socialization framework. The results suggest that peer normative contexts consistently influence the political orientation of students, regardless of the social era in which students attended college. This means that there is a tendency for students to change in the direction of institutional peer norms, a finding that is consistent with socialization processes. In short, rather than being generally

liberalizing, students entering politically liberal institutions tend to become increasingly liberal, whereas those attending politically conservative institutions become increasingly conservative.

At the same time, however, the results also demonstrate the importance of general social context above and beyond the influence on the campus context. These results suggest that social context plays a role that is just as important as campus context in terms of its influence on student political orientation. Because the influences of general campus context and the larger social context operate independently, these contextual factors can work in concert with or in opposition to one another, depending upon institutional and historical circumstances. Analyses that do not recognize changing social contexts may thus mistakenly attribute social context effects to the institution, when, in fact, the larger social context is driving the results.

Taken together, these results support previous research (Astin, 1993; Dey, 1996; Dey, 1988) which suggested that the declining influence of college in this area may simply be an indication of the social context of the period in which students attended college. In short, institutional influences are necessarily tied to specific social and historical contexts that are, in turn, constantly changing. The long-standing consistency of earlier research showing liberal changes in student political orientations may be explained, in part, by a long-standing social trend toward political liberalization (Davis, 1992; Weil, 1985). Similar observations have been made elsewhere. For example, Alwin, Cohen, and Newcomb (1991) emphasized the "historical boundedness" of the results of their long-term study of Bennington College students and pointed to other research emphasizing the need to consider the unique nature and influence of historical periods. Higher education researchers should consider the effect of period on their results, even though research findings may turn out to be stable over time.

A different kind of period effect can be identified and also needs to be considered. The nature of the college experience has continued to change over time in that the social boundaries of college campuses are not as well defined as they once were. In fact, with an expanded number of students living and working off campus, the primary social environment for many college students may in fact be entirely off-campus (Baird, 1988). These kinds of changes underscore the need to consider continually the way we approach both the study and practice of higher education.

On a practical level, it is important to understand the dynamics through which student political orientations and other attitudes and values are developed. As suggested earlier, higher education is increasingly

being held accountable for the outcomes it produces, even if these outcomes occur completely independently of any formal institutional action. Although relatively few institutions will be interested in overtly promoting specific political orientations among students, it is important to recognize that natural socialization processes will serve to influence students regardless of institutional intentions or actions (Dey & Hurtado, 1995). These processes will also affect orientations and behaviors that institutions do intentionally seek to change (such as alcohol use, career preferences, and study habits). Campus social context and general social trends will likely prove influential on such attributes as well.

An important extension of this work would be to explore other kinds of attributes that we might reasonably expect to be influenced by institutional actions and related socialization processes. College and social influences on the development of student educational and career goals and personal values would be an example of such an attribute, and one that might also be interesting due to the complex changes observed in this area (Dey, 1995; Dey, Astin, & Korn, 1991).

Finally, these findings raise important questions about the "shelf-life" of previous research findings. As I noted above, there have been dramatic changes in American society since the time that pioneering studies of political views and other outcomes were conducted. By revisiting these topics we can hopefully bring new and more complete understandings to the ways in which colleges influence students within and across a variety of social and historical contexts.

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“Liberal Arts” Colleges and the Myth of Uniqueness

Introduction

At least two problems face most liberal arts colleges in the 1990s. First, although the annual population of high-school graduates is expected to rise slowly in the United States through the remainder of the decade, regional differences indicate that a disproportionate number of liberal arts colleges are located in areas projected to lose high-school graduates in the years ahead (Breneman, 1994; *Chronicle of Higher Education*, 1995). Second, the curricular trend in higher education since about 1970 has been toward studies related to work (Knox, Lindsay, & Kolb, 1993). The shift from liberal arts to professional curricula arose primarily as a demand-driven response to changing student interests caused by shifts in the labor market for college graduates (Breneman, 1994).

Enrollment concerns in recent years have compelled many liberal arts colleges to abandon or sharply scale back their arts and sciences curriculum in order to accommodate student preoccupation with the immediate job market. In the words of economist David W. Breneman, “Many of these colleges shifted curricular focus during the 1970s and 1980s to meet student demands and to maintain enrollments, with the changes occurring quietly and largely unnoticed, campus by campus” (Breneman, 1994, p. 2). Under such changing conditions, the retention of a liberal

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arts claim in the academic mission statements of these colleges becomes inconsistent with their professional curriculum.

Three questions guide this study. How prevalent are liberal arts claims in higher education? To what extent are liberal arts claims made by colleges with curricula dominated by professional disciplines? Which institutional characteristics explain inconsistency between liberal arts claims and curricula?

Background

Colleges and universities in the United States make many claims about what they do for students. The current proliferation of popular college guides suggests that these claims are powerful symbolic devices that administrators and consumers deem meaningful (Schmitz, 1993). For example, many institutions claim to provide students with a liberal arts education. The following, published in *Peterson's Guide to Four-Year Colleges* (Peterson's Guides, 1993), are typical of such academic mission statements:

[This university] affirms the enduring value of liberal learning — the 2,500-year tradition dedicated to developing the whole person and to forming habits of reflective thought that last a lifetime (p. 1110).

The liberal arts curriculum exposes students to the major branches of study and builds their skills of communication, critical thinking, reasoning, and research (p. 1382).

[At the college] students receive a liberal arts education that challenges them to excel in the humanities, the sciences, and the arts; cultivates social values; and inspires lifetime goals (p. 1822).

Surprisingly, so rich a source of data as the public claims made by institutions in college guides and course catalogs has rarely been tapped. Most assessments of the academic missions of colleges and universities focus on developing technically accurate indicators. For example, the Carnegie Classification of Higher Education was developed in 1970 and remains an important resource for academe. The 1994 "Carnegie Classifications" groups colleges and universities into 11 categories (for example, Baccalaureate Liberal Arts Colleges I, Baccalaureate Liberal Arts Colleges II, Doctoral Universities I, and others) designed to reflect their academic missions. Institutions are classified according to: the highest level of degree awarded; the number of degrees conferred by discipline; the selectivity of admissions; and, in some cases, the amount of federal research support received (Carnegie Foundation for the Advancement of Teaching, 1994).

Although these criteria add clarity to the classification process, the focus on "objective" indicators has left researchers knowing more about the descriptive statistics of higher education than about what is presumably more obvious, i.e., the public claims made by institutions about who they are and what they do for students. The academic claims incorporated into a college's mission statement do not necessarily reveal the actual programs and services provided by the institution. Nonetheless, the vocabularies of claims represent valuable information because of the link between academic missions and the social contexts for and in which they are created.

This study uses data from synopses of college mission statements to analyze the relationship between academic claims and curricula in higher education. First, I determine the frequency of liberal arts claims in a sample of nearly eight hundred colleges and universities in the United States. Second, I assess inconsistency between claims and curricula at more than three hundred colleges characterized by liberal arts missions. Finally, I use logit analysis to identify institutional characteristics that either increase or decrease the probability that a college's liberal arts claim is inconsistent with its curriculum.

Data and Measures

Two sets of data published in *Peterson's Guide to Four-Year Colleges* (Peterson's Guides, 1993) are used in my analyses. The first, obtained from the *College Profiles and Special Announcements* (pp. 229–1098), consists of detailed institutional information (e.g., selectivity, size, endowment, religious affiliation, and academic programs) on 1,971 United States colleges and universities. The second source of data appears in the *In-Depth Description of the Colleges* (Peterson's Guide 1993, pp. 1105–2729). This section includes separate two-page synopses for 779 of the 1,971 institutions listed in the College Profiles. Each synopsis is written by an official at the institution. Only those institutions appearing in both the *In-Depth Description of the Colleges* and the *College Profiles and Special Announcements* (Peterson's Guide, 1993) were selected ($n = 779$) for further analysis.¹

The synopses represent "an open forum for colleges and universities, on a voluntary basis, to communicate their particular messages to prospective students" (Peterson's Guide 1993, p. 1105). From the synopses, I identify three distinct claims: (1) primarily liberal arts; (2) combined liberal arts and professional; and (3) primarily professional. I rely on the colleges' *claims* as they appear in the written descriptions. My interest is in the institution's self-proclaimed academic mission, not in the

actual form and content of its curriculum. The following examples characterize each of the three claims, respectively:

[This university] provides its students with a rigorous education, rooted in the liberal arts and focuses on questions of moral and ethical value (p. 1722).

[This college] offers students a rare blend of liberal arts studies and professional preparation (p. 1776).

[Our] programs are designed to provide a well-rounded business education and to prepare students for success in the business community (p. 1616).

The academic missions at 327 (42%) of the 779 colleges are classified as primarily liberal arts. Because my interest is in colleges *claiming* to be "liberal arts" in orientation, I limit the sample to these institutions. Therefore, only those colleges making primarily liberal arts claims are included in the analyses, yielding a final sample of 327 institutions.

Operationalization of the Dependent (Outcome) Variable

The dependent variable created for this study measures inconsistency between liberal arts claims and curricula. Specifically, inconsistency is coded 1 if a college is characterized by a liberal arts claim and awards more than 60% of its degrees in professional fields. Professional majors include business, criminal justice, education, engineering, health, and human services. Liberal arts fields include biology, economics, English, history, liberal studies, political science, psychology, and social science. Inconsistency is coded 0 for liberal arts colleges that award less than 60% of its degrees in professional disciplines. Means, standard deviations, and coding information for the measure of inconsistency, as well as the items used for the independent variables appear in Table 1.

My coding of inconsistency is contingent upon those disciplines I categorize as professional versus liberal arts. Therefore, the rationale I use to assign major fields to each category requires some clarification. For instance, some educators may question my inclusion of the education major in the professional fields category. The designation of a teaching degree as a professional discipline is not without rationale. My definition of a professional field stems from an emphasis on the role of the major to train (rather than simply educate) students for entry into a particular occupation upon graduation. Professional disciplines, such as education, stress course work that provides skills needed in the immediate labor market.² Conversely, liberal arts fields may be described as pre-professional, because many graduates enroll in professional programs (e.g., law, medicine) upon graduation, but their liberal arts major itself provides limited undergraduate professional training.

TABLE 1
Variables, Indicators, Means, and Standard Deviations

<i>Variable</i>	<i>Indicator</i>	<i>Mean</i>	<i>SD</i>
Public ^a	1 = public institution; 0 = otherwise	0.06	0.24
Denominational	1 = religious institution; 0 = otherwise	0.64	0.48
Selectivity ^b	1 = more than 50% of first-year students were in top 10% of their high-school class and scored over 1150 on the SAT or over 26 on the ACT; fewer than 60% of applicants accepted; 0 = otherwise	0.21	0.41
Residentiality	Percentage of undergraduates living on campus	56.41	25.41
Endowment	natural logarithm of endowment, coded in millions of dollars	2.76	1.53
Size	natural logarithm of undergraduate, graduate, part-time, and full-time enrollment	7.46	0.90
Age (years)	institutional age (fall 1993)	109.19	48.19
BAonly	1 = only degree awarded is bachelor's; 0 = otherwise	0.32	0.47
Greek	1 = national and local fraternities and sororities; 0 = otherwise	0.54	0.50
Women	1 = women's college; 0 = otherwise	0.09	0.29
North ^c	1 = institution located in a northern state; 0 = otherwise	0.36	0.48
Midwest	1 = institution located in a midwestern state; 0 = otherwise	0.25	0.43
West	1 = institution located in a western state; 0 = otherwise	0.17	0.38
<i>Dependent (outcome)</i>			
Inconsistency	1 = liberal arts claim and 60% or more of degrees awarded in professional disciplines; 0 = liberal arts claim and less than 60% degrees awarded in professional disciplines	0.68	0.47

^a Private nondenominational (omitted reference category).

^b Adapted from Peterson's Guide (1993).

^c South (omitted reference category).

My definition of inconsistency, which stresses claims over content and major field over general education, raises some pertinent questions. Because the major field typically represents only about one-third of a student's course work, do the required general education courses not provide a liberal education regardless of major (Splete & Garth, 1990)? What about large multipurpose institutions with schools of liberal arts wherein students complete courses as part of their requirements for professional degrees? These are reasonable questions and underscore important issues regarding the state of liberal learning in higher education.

I readily agree that liberal learning can and does occur outside the domain of liberal arts majors. Nonetheless, it is not my intention in this article to link the state of liberal learning with the extent of consistency between claims and curriculum. This is a study about the public statements made by "liberal arts" colleges, a term that has little meaning if detached from any linkage with liberal arts disciplines. I believe my emphasis on the congruence between liberal arts claims and curriculum (rather than liberal learning) is consistent with the stated objectives of this study. Moreover, I concur with Breneman (1994, p. 142) that defining liberal arts colleges in terms of curriculum offered is both defensible and true to the historical and traditional meaning of such institutions.

Finally, in operationalizing a measure of inconsistency, I have deliberately taken a cautious approach. My coding of the dependent variable has the effect of underestimating the number of liberal arts colleges with claims inconsistent with curricula. In other words, if a college awards as few as 40% of its degrees in liberal arts disciplines, its claim is coded as being consistent with curriculum.³

Method of Analysis

My analyses have two objectives. The first is to determine the percentage of colleges characterized by liberal arts claims that are dominated by professional curricula. The second objective is to explore the relationship between claims and curricula using a multivariate model that includes variables representing institutional characteristics. The first objective is addressed by offering a descriptive analysis of the percentage of colleges coded 1 on the inconsistency measure. Given the dichotomous nature of the dependent variable, a logit regression model is employed to estimate the multivariate equation used to achieve the second objective.

Assessment of the logit model does not have the intuitive appeal of interpretation of ordinary least-squares (OLS) regression. Logit coefficients represent the effect of a unit change in the independent variable (X) on the logarithm of the odds of being in category 1 (for example, inconsistency between a liberal arts claim and curriculum) of the dependent variable (Y). Fortunately, the probability (as opposed to the logarithm of the odds ratios) that Y equals 1 can be computed. These transformed coefficients can be interpreted as the effect of a one unit change in X on the probability that Y equals 1. The chi-square statistic is used to assess the fit of the model. It is the logit analysis equivalent of the F -test in OLS regression.

Results

The last row of Table 1 presents the mean (0.68) of the measure of inconsistency for the sample of 327 liberal arts colleges. The magnitude of this descriptive statistic indicates remarkable inconsistency between academic claims and curricula. Over two-thirds (68%) of the institutions making liberal arts claims are dominated by professional majors.

Table 2 displays results from a logit model predicting inconsistency between claims and curricula. For each of the 327 colleges, the probability of inconsistency is specified to be a function of thirteen independent variables. Regarding the likelihood of inconsistency, coefficients from logit regression analysis reveal seven statistically significant variables.

The results in Table 2 specify that denominational ties increase the probability of inconsistency. The logit coefficient of 1.060 implies that religiously affiliated colleges are substantially more likely to offer claims inconsistent with curricula than private nondenominational institutions. Evaluated at the mean (0.68) of *Y*, and holding constant the effects of all other independent variables, the probability of inconsistency increases by 0.18 when a college is religiously affiliated.

TABLE 2
Logit Coefficients, Standard Errors, and Effect on Probabilities
for Model Predicting Inconsistent Claims

Variable	Coefficient	SE	Effect on Probability ^a
Public	-0.776	0.956	-0.185
Denominational	1.060*	0.453	0.179
Selectivity	-2.077**	0.554	-0.469
Residentiality	-0.050**	0.012	-0.012
Endowment (log)	-0.400*	0.203	-0.093
Size (log)	0.084	0.290	0.018
Age	-0.012*	0.005	-0.003
BAonly	-1.590**	0.437	-0.379
Greek	0.342	0.456	0.070
Women	-0.117	0.657	-0.025
North	-0.650	0.552	-0.155
Midwest	-0.409	0.565	-0.096
West	-1.635*	0.655	-0.387
Log likelihood	-97.664		
Model chi-square	212.130***		

NOTE. *N* = 327.

^a Probabilities calculated at the mean (*p* = 0.68) of *Y*

* *p* < 0.05, two-tailed test of significance

** *p* < 0.01, two-tailed test of significance

*** *p* < 0.001, two-tailed test of significance

The findings in Table 2 indicate a significant reduction in inconsistency for selectivity, residentiality, endowment, region, age, and degrees awarded. Indeed, the strongest predictor of consistency between liberal arts claims and curricula is selectivity. Based on the coefficient of -2.077 , if a college is highly selective, the probability of inconsistency decreases from 0.68 to 0.21. For residentiality, the logit coefficient of -0.050 suggests that the probability decreases by 0.012 for each one percentage rise in undergraduates living on campus. The probability of inconsistency is reduced by 0.093 for each one million dollar increase in the value of a college's endowment.

As indicated by the significant effect for age, the older an institution, the less likely it is to manifest inconsistency between a liberal arts claim and curriculum. The probability of inconsistency is also reduced if a college is located in the western region of the United States rather than a southern state. Finally, colleges that award only the baccalaureate are less likely to exhibit inconsistency than institutions offering both undergraduate and graduate degrees.

Interpreting the Relationship between Claims and Curriculum

Data from *Peterson's Guide to Four-Year Colleges* (Peterson's Guides, 1993) reveal that inconsistency between academic missions and curricula is common among self-described "liberal arts" colleges. As indicated in Table 2, the probability of inconsistency between claims and curricula is a product of multiple determinants. Explanatory perspectives derived from both sociological and economic research on the organizational fields (e.g., other colleges that offer similar programs and services, compete for similar students, and are evaluated by corresponding publications and accreditation agencies) of higher education inform my discussion of the relationship between academic missions and curricula.

Legitimizing Myths and Educational Organization

The shift from liberal arts to professional education was a dominant strategy followed by hundreds of colleges in the past two decades (Breneman, 1994). Nonetheless, for many colleges, the liberal arts claim remains. Why? One prominent explanation argues that retaining a liberal arts claim strengthens attachments and loyalties to the institution and its public image (Knox, Lindsay, & Kolb, 1993). Thus, despite the dominance of its professional curriculum, a college may continue to promote a liberal arts academic mission. Maintaining the "liberal arts" myth symbolizes the environment within which it was created — especially those beliefs that define what higher education is and what it can do (DiMaggio & Powell, 1983; Frank, Schofer, & Torres, 1994).

Though few institutions are immune to pressures to shift curricula toward more professional disciplines, religiously affiliated liberal arts colleges may experience these pressures most keenly. Financial support from the denominations remains modest, and the religious tie may hinder recruitment and fund-raising (*U.S. News & World Report*, 1993). Those institutions unwilling to loosen their denominational linkage in order to appeal to a broader student population may opt for a more immediately marketable professional curriculum (Breneman, 1994). Nevertheless, as the results of this study indicate, many religiously affiliated colleges maintain liberal arts claims that are inconsistent with curricula. Retaining such a claim may allow the college to emphasize its history and similarities to more prestigious institutions, thereby contributing to its legitimacy (DiMaggio & Powell, 1983).

Most four-year colleges in the United States cannot guarantee a connection between claims of a distinctive educational mission and a clear social and political elite to which graduates can be promised access. However, several researchers contend that a small number of institutions are able to provide graduates placement in high-status positions (Kamens, 1971; Kingston & Lewis, 1990; Meyer, 1970). Such colleges are likely to be exclusively undergraduate, highly selective, residential, and characterized by a liberal arts mission (Kamens, 1974, 1977). The liberal arts claim, then, is probably consistent with the curriculum at these elite institutions, in contrast with the vast majority of institutions of higher education today. Consequently, selectivity and residentiality are major legitimating strategies for colleges who accurately describe their curricula as liberal arts.

Financial Growth and Stability

Increases in college tuitions, combined with the decline in real terms of federal student aid during the 1980s, raised the specter that more and more families could not afford to pay for a college education. In response to this problem, many colleges sharply increased institutionally funded scholarships. For many liberal arts colleges without large applicant pools, such scholarships amount to price discounts, meaning that the institutions cannot actually charge the advertised tuition and maintain enrollments (Collison, 1992).

A growing number of colleges are devoting an increasing amount of their total education budgets to such aid, a percentage that has risen steadily since the 1980s at most colleges (Breneman, 1994). While securing new endowments to support scholarships is a priority throughout higher education, colleges with small endowments are most vulnerable financially. Under such conditions, liberal arts colleges with little or no endowment revenue may shift curricula from liberal arts to professional fields to accommodate students' interests and maintain enrollments.

At the same time, the 1980s were especially beneficial to those colleges that began the decade with sizeable endowments, primarily due to the extraordinary growth of endowment portfolios invested in equity funds (Breneman, 1994). Consequently, the gap separating the wealthiest and poorest colleges grew substantially. Those institutions that entered the 1990s with large endowment revenues may be less likely to shift curricula away from the liberal arts, because they possess the financial resources to recruit highly qualified students committed to a liberal arts education.

Discussion

This study describes the relationship between academic mission statements and curricula of a sample of 327 liberal arts college in the United States. Perhaps my most conspicuous finding is not the popularity of professional majors, but the frequency of liberal arts claims at colleges dominated by professional education. Clearly, curriculum is not the process driving the persistence of liberal arts claims, if one considers that over two-thirds of the colleges dominated by professional majors highlight liberal arts in their academic mission statements. In part, such inconsistencies derive from colleges' efforts to manage the uncertainty of their environments. Sources of uncertainty include: (1) changing student interests, caused by shifts in the labor market for college-educated talent, and (2) demographic changes regarding high-school graduates (Breneman, 1994).

My findings suggest that claims are not directed inward, toward specific organizational actors or programs, but outward at the shifting interests of applicants, accreditation agencies, college rating guides, and other public constituencies. As a promotional device the liberal arts claim does not necessarily reveal the actual motives that shape curricula, instead it highlights the repertoire of accepted rationales for a higher education. Thus mission statements are susceptible to the logic of loose coupling (Weick, 1976), and skepticism about claims for a liberal arts education is appropriate. Nonetheless, the myth of uniqueness remains central to "liberal arts" colleges. As long as the myth is operative, it may have the real consequence of enhancing legitimacy, hence increasing a college's likelihood of survival. Yet, in a meaningful sense, the United States has lost many liberal arts colleges.

Conclusions

Claims incorporated into college mission statements are an important but neglected aspect of the study of higher education. The results of my

research suggest that several institutional characteristics determine the likelihood of inconsistency between liberal arts claims and curricula. I conclude by noting some implications of my findings.

To date, most empirical studies (including this one) concerning the classification of institutions within higher education have been conducted at the macrolevel (Carnegie Foundation for the Advancement of Teaching, 1994). The process of academic mission statement development from the perspective of organizational members is less well documented. Direct observation of organizational actors is needed to understand how claims are created and become inculcated (e.g., Powell, 1991). Moreover, accounts collected from administrators about claims developed by their institutions represent an important data source because of the link between accounts and the social contexts for and in which claims are produced (Morrill & McKee, 1993).

Another way to assess the relationship between claims and curricula is through longitudinal studies of liberal arts colleges. For example, in the past three decades, the shift toward professional degrees escalated throughout higher education (Knox, Lindsay, & Kolb, 1993). The percentage of degrees awarded in the arts and sciences between 1968 and 1986 dropped from 47% to 26% (Breneman, 1994). Accordingly, one could analyze colleges over time and should discover greater consistency between liberal arts claims and curricula in the 1950s and 1960s.

Further exploration will require broad-ranging micro- and macrostudies of the organizational fields of higher education. Such research may provide a more complete understanding of the means available to colleges to manage effectively the uncertainty of their environments. Thus, future investigations may yield insights into how organizational strategies simultaneously construct and are constructed in higher education.

Notes

¹The absence from the *In-Depth Description of the Colleges* of any institution does not represent an editorial decision on the part of *Peterson's Guide to Four-Year Colleges* (Peterson's Guides, 1993). Institutions included in the In-Depth Descriptions did not differ significantly from those omitted.

²My inclusion of education in the professional category is not without precedent, the Carnegie Foundation's *Classification* (1994) of disciplines also include education as a professional field of study. Moreover, my designation of major fields as professional or liberal arts is consistent in all categories with the Carnegie Classifications.

³Admittedly, a case could be made for a stricter criterion for defining consistency. It should be noted, however, that the 40% liberal arts degrees as a cutoff is one of the criteria used by the Carnegie Classification to designate Baccalaureate (liberal arts) Colleges I. See also Breneman (1994) for additional justifications for the 40% liberal arts degrees criterion.

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Who Decides Which Budgets to Cut?

Introduction

The 1950s and 60s were decades of tremendous growth and public investment in postsecondary education. In contrast, much of the 1970s and 80s was a no-growth period interspersed with episodes of retrenchment related to economic recessions and shifting state priorities. One study (Mortenson 1994a) estimated, for example, that half of the increased prison costs in America between 1980 and 1992 came from higher education budgets. While the financial context has cycled through hard times and better times, the long-term trend in state support for postsecondary education has been down. For example, Mortenson (1994b) provided figures showing that higher education's share of state government expenditures had declined from an average of 22% (1966 to 1975) to 20% (1976 to 1985). Following that period, there was a steady decline to approximately 17% in 1992.

Several factors suggest that the financial difficulties in most states during the 1990s are not short-term and recession related but rather long-term and structural. For example, rising public concern about crime and random acts of violence have led to "three strikes, you're out" laws and other "get tough on crime" initiatives. Therefore, rising costs of prison construction and operation will continue to drain resources

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from the general fund in most states. In addition, health care costs continue to rise. Levit et al. (1994) found that since 1960 health care expenditures have consumed an additional 1% of the nation's GDP every three to four years. Rising state expenditures on health care will continue to absorb more of the general fund if Congress shifts additional responsibility to the states. As funds are reallocated from education to cover rising prison and health care costs, the matter of faculty participation in financial decisions, which has always been important, becomes a critical issue for the 1990s.

In contrast to temporary budget adjustments to cyclical changes in the financial context, colleges and universities must close programs and reduce services in order to adapt to a new, lower level of resources when the reductions are permanent. Who decides which budgets to cut? This question has been addressed in two ways: who *should* be involved and who *actually* decides.

Three decades ago the American Association of University Professors, the American Council on Education, and the Association of Governing Boards of Colleges and Universities (AAUP/ACE/AGB, 1966) issued a statement on governance that spoke to the *should* question. While taking care to respect wide differences in the history, size, and complexity of American colleges and universities, the framers of the AAUP/ACE/AGB document spoke in general terms about "joint effort" in the internal operations of the institution.

The statement recognized the primary responsibilities of the governing board and the president in financial matters but also carefully incorporated wording that legitimized the right of the faculty to participate in budgetary decisions, particularly those that had an impact on the educational program. Although many institutions have since entered into collective bargaining agreements, Rhoades (1995) found that retrenchment clauses at two-year colleges typically included only minimalist "meet and confer" language and that the contracts at four-year institutions "relegated the bargaining agent to the role of reacting to plans that had been drafted by the administration rather than involving faculty in such deliberations." Having a right is not the same as actually having influence. So, who actually makes allocation decisions and who decides which budgets must be cut when resources decline?

Throughout much of the history of American higher education first the governing boards and later the presidents governed from the top down (Clark, 1987, p. 149). During the first half of the twentieth century, the faculty secured a central role in the formulation of educational policy. By 1960 John Corson (p. 43) had recognized the principle of "organizational dualism."

The president, vice presidents, deans and directors comprised the traditional administrative hierarchy. Paralleling the administrative organization were the campuswide senates, school/college councils, and departmental committees to address "a broad range of educational problems and such other matters as may be entrusted to or are a matter of interest to the faculty." Corson (1960, pp. 61–62) also recognized that the numerous demands on the president's time meant that many presidents no longer had a major role in establishing educational policy. As a result, there was a separation of powers with the president as head of the administration operating under what Bergquist (1992, p. 5) later called the "managerial culture" and with the "collegial culture" in charge of educational policy.

Surveys conducted in the 1960s by Platt and Parsons (1970, pp. 147–149) found that most faculty thought that they had high levels of influence over educational matters, but they rated themselves as having little influence in setting broad financial policy. A decade later Mortimer and McConnell (1982, pp. 161–162) noted that there had been great growth in faculty control over academic affairs in the 1970s. Even though the president continued to have the formal delegation of authority from the governing board for all aspects of the campus, Mortimer and McConnell wrote that university "faculty members now virtually consider themselves independent professionals responsible mainly to themselves and their peers rather than to their institutions and their administrative officers." However, they predicted that financial stringency would lead to the centralization of authority and that the resulting faculty backlash would produce votes of "no confidence" in the president. After describing several clashes during financial downturns in the 1970s and recognizing that some instances might have been due to ineffective administrative style or a lack of reasonable consultation, Mortimer and McConnell stated that "some presidents certainly are victims of unreasonable faculty resentment" (p. 162).

Baldrige, Curtis, Ecker, and Riley (1978, p. 212) also predicted that the changing social and financial context surrounding higher education would cause operational control to move higher in the organization and that administrators would have greater influence in governance as the level of financial support declined. "Putting it bluntly, the faculty members like to distribute the goodies, but want the administrators (who are a little more removed) to be the ones to be stuck with the job of cutting back their colleagues' jobs and programs." Consistent with that generalization, Pondrom (1981, p. 107) in reporting on retrenchment within the University of Wisconsin system in the early 1970s noted that the faculty on most campuses did not want a major role in deciding which programs were to be closed and who was to be laid off.

Baldrige et al. (1978) were certainly correct in predicting reductions in financial support for higher education, but were they correct in saying that faculty want to participate in allocation decisions but do not want to cut budgets and close programs? Ridgely (1993), in reporting on an AAUP conference on "Faculty Senates and the Fiscal Crisis" more than a decade later, called the lack of faculty interest in budget decisions a myth "furthered by some administrators, who would far rather see faculty stay out of budgetary decisions." As one example of faculty willingness to participate, Miller (1993) described an "open, collegial process" at the University of Maryland, College Park, which resulted in the closure of twenty-nine degree programs, seven departments and one college in response to a sudden loss of 20% of the state budget appropriation. Though far from speedy — it drug on for 20 months — Miller characterized the process as being in "the best tradition of shared governance."

In contrast to the view expressed by Baldrige et al., the AAUP position has been that faculty are willing to be involved in the painful process of cutting budgets and that the solutions to a financial crisis will be better when the faculty actively participate. However, faculty frequently express anger and frustration about being blocked from participating. For example, Dye and Bing (1990) concluded that administrators had abandoned any pretense of collegiality on many campuses and likened being a faculty member to being a prison inmate. Do governing boards and presidents really exclude faculty from budget cut decisions so that managerial purposes can be accomplished without entanglement in faculty due process and self-interest, or are anger and frustration the products of the declining financial context and unmet expectations?

After reviewing AAUP cases dealing with retrenchment in the 1980s, Slaughter (1993) concluded that academic administrators (presidents, chancellors, provosts, and deans) had adopted both the rhetoric and the tactics used by corporate CEOs. According to Slaughter (1994), academic executives sought to increase faculty productivity by eliminating some low enrollment courses and consolidating small departments. Management also reallocated resources and pursued new funds for programs that were already resource rich. "Administrators were not engaged in retrenchment, the cutting back or reduction of institutions;" she stated (1993, p. 6) "rather they were engaged in restructuring, or molding higher education through internal reallocation and procurement of more resources from external sources."

To varying degrees on different campuses, presidents typically consult with faculty leaders before closing programs and cutting budgets. However, Slaughter (1993) concluded that although faculty have to be heard, they need not necessarily be heeded. "Essentially, authority for retrenchment resided in presidential or administrative 'judgment'" (p. 258).

Support for the inference that academic executives had taken over under crisis conditions was provided by Gumpert (1993), who concluded that "top administrators (perhaps due to time constraints) have been seizing the *de facto* rather than the *de jure* use of power, leaving faculty to either align themselves (through explicit support or passive acquiescence) with the dominant management trajectory or to reject it." While some autocratic presidents may merely report their decisions to the faculty, the implication of the Slaughter (1993, 1994) and Gumpert (1993) studies is that even when faculty are consulted the real power lies with the academic executives.

However, quite different findings were reported by Williams, Olswang, and Hargett (1986) from their study of AAU institutions. They reported considerable faculty participation in the budget reduction process at the departmental, school or college, and university levels. And faculty involvement *increased* with the seriousness of the financial difficulty (i.e., there was *more* faculty involvement when the financial problem was serious enough to require faculty terminations than when programs were closed but no faculty were fired). Despite increased involvement, however, the level of faculty morale, as rated by the provosts, declined. Williams, et al. concluded that the seriousness of the cut was the controlling factor on morale, not the degree of faculty participation in the final decisions.

The Slaughter (1993) and Williams et al. (1986) studies both dealt with retrenchment in the 1980s, but the conflicting findings may be attributable to differences among the institutions studied. The Slaughter study was based upon 17 retrenchment cases reported by AAUP's Committee A "Academic Freedom and Tenure," which included only one Doctoral Granting II and one Research I university. Williams et al. surveyed only AAU institutions, receiving responses from 47 provosts and 41 faculty chairpersons of the senate. Several studies (Baldrige et al., 1978; Blau, 1973; Cohen & March, 1974; Platt & Parsons, 1974) have found higher levels of faculty influence at more research-oriented institutions. Also, the more research-oriented institutions are wealthier and may have the slack to address their financial problems without centralizing authority and excluding faculty from the decision-making process. Therefore, we might label our first possible explanation for the differences between the Slaughter and Williams et al. studies the "institutional type" hypothesis: autocratic presidents seize authority during a financial crisis at two-year and four-year colleges, but not at universities.

Another possibility is that presidents do *not* gain power in a financial downturn, but the crisis conditions produce lower faculty morale and a loss of confidence in the president. Drawing upon his personal experi-

ence and the opportunity to consult at 25–30 institutions experiencing financial difficulty, Peterson (1980) concluded that it was very difficult to maintain faculty morale during a financial crisis, which often produces suspicion, fear, insecurity, and divisiveness. Along these lines Bensimon, Neumann, and Birnbaum (1989, p. 21) suggested that “the differences between successful and unsuccessful leaders may be more apparent than real and more frequently based on luck and the exigencies of the environment than on specific behaviors or skills.”

According to the financial change hypothesis, the increase in faculty grievances and the assumption that the president is seizing power is typically *not* due to an actual increase in presidential authority but is often caused by a loss of faculty morale and the attribution of the declining conditions on campus to the leader rather than to contextual factors beyond presidential control. Therefore, presidents can, as Mortimer and McConnell (1982, p. 162) indicated, become lightning rods for the wrath of the faculty, even though the administration may have had little responsibility for the financial crisis. As such, the faculty reaction is analogous to angry voters who refuse to reelect a sitting president of the United States during an economic recession, over which the president has had little, if any, control.

Study Questions

One purpose of the current study was to confirm our general beliefs about *who* makes financial and educational policy decisions and how those decisions are made. Therefore, the first step was to test empirically the extent to which “joint effort” is actually practiced by looking separately at judgments of who has the *primary* influence and who has *some* influence over the final outcome of different kinds of decisions. For example, even though Corson’s (1960, p. 43) concept of “organizational dualism” predicts that faculty will have much more authority over educational policy matters than over budget and resource decisions, the principle of “joint effort” suggests that faculty have a right to participate and will have some influence over those administrative decisions. Our first question is: How much influence do faculty actually have?

We would expect more faculty participation in decision making at some institutions than at others. Indeed, it should be possible to place colleges and universities along a continuum from those that are the most externally constrained and centrally administered to those that have the greatest autonomy and the most democratic systems of government. We would expect higher levels of faculty morale when faculty have a greater share in the system of government. Therefore, our second question asks:

To what extent is faculty satisfaction with the way decisions are made on campus associated with the amount of power and influence faculty have?

Our third question asks: How are financial and educational policy decisions made? Inherent in the concept of "organizational dualism" is the assumption that the hierarchy will prevail when the primary authority is held by the administration, whereas collegial processes will prevail when the faculty have a major role in decision making. Over the years, however, various writers (Baldrige, 1971; Birnbaum, 1988; Cohen, March, & Olsen, 1972) have introduced other ways of looking at decision-making processes, as we have come to appreciate the complexities of governance in higher education. Birnbaum (1988), for example, not only described how each of these "lenses" operates within prototypical institutions but also explained how they can help us see into the complex social system of a single campus (p. 175). If educational policy matters are addressed by faculty in a collegial manner, emphasizing process, care, and fairness, then we might anticipate a clash between the collegial and managerial cultures on matters requiring joint effort, especially in the midst of a financial crisis (see Bergquist, 1992, pp. 41-75).

The final set of questions addresses the alternate interpretations of presidential behavior during periods of retrenchment. If Slaughter and Gumpert are correct that campus presidents use financial crises to seize power in order to reshape their institutions, then we should find that presidents have more authority and the faculty have less influence when budgets must be cut than when new resources are available for allocation to academic programs and departments. Indeed, Rubin (1979) and Starbuck, Greve, and Hedberg (1978) did find a tendency toward greater centralization of authority during periods of financial stringency. However, studies of organizational decline have not always found greater centralization and tighter management controls (Cameron, Whetten, & Kim, 1987). Therefore, our fourth question is: How do authority and influence shift during a financial downturn?

The fifth and sixth questions test the institutional type and financial change hypotheses. If the differences between the Slaughter (1993) and Williams et al. (1986) studies are due to the types of institutions studied, then we should find more presidential authority for budget cuts than usual budget allocation decisions at two-year and four-year colleges but not at universities. Therefore, our fifth question asks: Does the answer to question four differ by institutional type? On the other hand, if presidents gain no authority and faculty lose no influence when budgets must be cut, regardless of institutional type, then we must look more closely at faculty morale. Our sixth question tests the financial

change hypothesis by asking: What happens to faculty morale in a financial downturn?

Method

Sample of Institutions

We started with the set of 483 colleges and universities that had participated in either the Faculty Survey or the Student Survey conducted by UCLA's Higher Education Research Institute (HERI). For more information about these surveys and general methodology, see Astin (1991, 1993).

Less than 5% of American postsecondary institutions are universities. Therefore, a random sample of this size would have only 21 universities. Because we wanted to analyze the data by institutional type, 6 more universities were added to the original sample of 45 to increase the reliability of findings about universities. A letter, describing the study and inviting the institutions to participate, was sent to the presidents of each of the 489 colleges and universities. Approximately one-half of the institutions (248 of 489) agreed to participate.

Three color-coded copies of the questionnaire (described below) were sent in the fall of 1990 to each campus: one for the president to complete, one for the academic vice president/provost, and one for a faculty member who "knows the system of government." We received 588 of the 744 questionnaires from the 248 institutions for a response rate of 79% and an average of 2.4 respondents per campus. There were no significant differences in questionnaire return rates among our three respondents: presidents = 76%, academic vice presidents = 82%, faculty = 78% ($F_{2,496} = 1.67, p > 0.05$).

Questionnaire

The questionnaire was designed to collect information about the institution, its current context, the agents who influence different kinds of decisions, the way decisions are made, attributes of the president, characteristics of the academic vice president or provost, and ratings of the campus context. The 43 *who* items were separated into four kinds of decisions: budget and resource, educational policy, faculty personnel, and student affairs.

For each item the respondent was asked to identify whether each of 13 different agencies or groups has "primary influence," "some influence," or "no influence" in decision making on that issue. The 13 agencies and groups included those external to the campus (governor/legislature, coordinating commission), the overseers (governing board, chancellor of a

multi-campus system), the administration (president and vice presidents, deans, department chairs), faculty (departmental faculty, a faculty advisory council/senate, town meeting), faculty bargaining group, and students (student leaders or student judiciary). During the data analysis phase a weighted combination was computed by doubling all "primary influence" ratings and then adding the "some influence" ratings.

The 43 items were selected to extend our understanding of previous research (Baldrige et al., 1978; Blau, 1973; Carnegie Foundation for the Advancement of Teaching, 1982; Cohen & March, 1974; Platt & Parsons, 1970) and were designed to elicit a range of responses for different institutions. We included several items that had been used in previous studies but asked for separate ratings of "primary" and "some influence." We also wrote new items that teased apart a more general question used in a prior study.

For example, Blau (1973, p. 289) looked at the decentralization of authority over the budget by asking who had the discretion to redistribute unexpended funds for tenured faculty. If the president acted alone, the response was assigned a weight of 7. If the president's authority was shared, the response was assigned a weight of 6. A weight of 5 was assigned if the vice president could act alone or if dollars returned to the general institutional fund. Similarly, deans were assigned a weight of 3 and department chairs a weight of 1, with intermediate weights of 4 and 2 assigned if authority was shared. Our questions and our weighting algorithm, which is described below in the section entitled "Institutional Categories," were designed to elicit more information about the influence of on-campus and off-campus agencies and groups.

In order to get more information about different kinds of financial decisions, we asked our respondents to rate the extent to which each of 13 agencies or groups had primary influence, some influence, or no influence over the following budget and resource items:

- allocating discretionary dollars to a department to improve the quality of academic programs;
- deciding how unexpended fund balances in a department will be spent at the end of a fiscal year;
- authorizing a department to use funds in its budget to acquire microcomputers and install a local area communication network;
- transferring funds from one department account to another (less than \$5,000);
- determining how funds allocated in the budget will be distributed to various academic programs and departments on campus;
- choosing areas for budgetary and programmatic reduction in a time of declining resources.

As an example of previous research on educational policy matters, the Carnegie Foundation for the Advancement of Teaching (1982, pp. 96, 98) asked respondents to identify which of 12 possibilities was "the agency whose decision generally stands and is not reversed" for setting campus admission requirements and determining course content and objectives. The similar educational policy items from our questionnaire were:

- revising undergraduate admission requirements,
- choosing course content, textbooks and syllabus.

The *how* questions reflected different lenses for looking at decision making. For each of the four kinds of decisions (budget and resource, educational policy, faculty personnel, student affairs) the respondent was asked to rate whether a particular lens was "not at all descriptive," "somewhat descriptive," or "very descriptive." The questionnaire included the following brief descriptions of the seven lenses:

1. *external* — by the governor, legislature, statewide coordinating agencies or other parties external to the campus (i.e., the church or original benefactor);
2. *hierarchical* — according to the hierarchical structure of the bureaucracy, with primary authority held by the governing board and the president, and to a lesser extent to the deans and the vice presidents;
3. *collegial* — in a collegial manner that respects the faculty as professionals with special expertise and a right to determine their working environment;
4. *bargaining* — through a bargaining or negotiating process between the administration and some other agency (e.g., union or faculty senate) that represents the faculty;
5. *organized anarchy* — by individuals or local groups in a highly decentralized manner with overwhelming attention to local rather than institutional concerns;
6. *symbolic* — on the basis of the symbolic meaning, shared beliefs, and campus values rather than the careful analysis of alternatives and rational choice;
7. *democratic* — in a democratic manner in which faculty, students, administrators (and possibly alumni) are considered to be equals.

Each respondent's rating was coded as either 1, 2, or 3 for "not at all descriptive," "somewhat descriptive" or "very descriptive." These ratings were averaged across respondents from the same institution, resulting in a mean rating from 1.0 to 3.0 for each lens and the four kinds of decisions at every campus (cf. Figures 1 and 2).

The questionnaire was pilot-tested by seven individuals familiar with higher education in the United States. Some items were removed from the final draft because they did not apply to community colleges or liberal arts colleges; other items were reworded to improve clarity. The pilot-testing process convinced us that the instrument assessed important decisions affecting the nature and quality of the institution and that the questionnaire was appropriate for the full range of American colleges and universities.

Treatment of Institutional Data

Multiple responses from the president, academic vice president, and a faculty member on the same campus gave us an opportunity to compare different perspectives and to reduce measurement errors. In order to compare interrater reliability, Cronbach's alpha values were computed on all of the 43 *who* items for each of the 211 institutions for which we received 2 or 3 questionnaires. The average Cronbach's alpha value was 0.73. Interrater reliability was not systematically related to any of the independent variables we examined (i.e., institutional characteristics, presidential and vice presidential characteristics, and institutional context variables). We concluded that the variability in responses reflected modest differences in the perspectives of participants and that elements of bias would be reduced by combining their responses. Therefore, we averaged the responses if two or three questionnaires were available for the same institution.

Six institutions were removed from the sample because there was little agreement among the raters on *who* items (Cronbach's alpha values below 0.50). Similarly, the six institutions with the least agreement on the *how* items were also removed from the sample. Because we intended to weight the "primary influence" responses more heavily than the "some influence" responses during the analysis phase, the instructions to the respondents asked them to identify no more than two agencies or groups with primary influence over the *who* items. Fourteen institutions were also removed from the sample because none of the respondents followed that instruction. Three institutions met more than one of the criteria for removal from the sample. Therefore, a total of 23 institutions were removed, leaving a final sample of 225 colleges and universities.

Table 1 compares the percentage of institutions in our sample to the universe of 3,487 colleges and universities as reported by the Chronicle of Higher Education (1992, p. 45). The final sample of 225 colleges and universities provided a mixture of public and private institutions of all types and sizes. It is somewhat overrepresentative of universities and underrepresentative of two-year colleges and small campuses.

TABLE 1
Comparison of the Study Sample to the Universe of American Colleges and Universities by Control, Type and Size

	Sample						Universe									
	Two-Year n	%	Four-Year n	%	University n	%	Subtotal n	%	Two-Year n	%	Four-Year n	%	University n	%	Subtotal n	%
Public																
<1000	3	1	1				4	1	119	3	35	1			154	4
1000-2500	7	3	6	3			13	6	287	8	103	3			390	11
2500-5000	13	6	8	4			21	10	228	7	104	3			332	10
5000-10,000	8	4	19	8	5	2	32	14	187	5	137	4	6	1	330	10
>10,000	6	3	7	3	16	7	29	13	131	4	118	3	88	2	337	9
Public subtotal	37	17	41	18	21	9	99	44	952	27	497	14	94	3	1,543	44
Private																
<1000	3	1	27	12			30	13	375	11	792	23			1,167	34
1000-2500	1		57	25	1		59	25	44	1	456	13			500	14
2500-5000			20	9	2	1	22	10	3		149	4	5		157	4
5000-10,000			8	4	1		9	4	1		52	2	25	1	78	3
>10,000					6	3	6	3	3		7		32	1	42	1
Private subtotal	4	1	112	50	10	4	126	55	426	12	1,456	42	62	2	1,944	56

Because there were enough community colleges in our sample to draw reliable conclusions about two-year institutions, we chose not to incur the additional expense of sending out more questionnaires and collecting thousands of additional Faculty Surveys. We considered but rejected the alternative of developing a weighting algorithm for institutions. We were already weighting the "primary influence" responses more than the "some influence" responses. In addition, we intended to use Blau's (1973, p. 289) technique for weighting some agencies and groups more than others to assess degrees of decentralization. Rather than adding a third set of weights and getting further away from the original source, we chose to analyze the data by institutional type and report the results separately where appropriate.

UCLA's Higher Education Research Institute merged our records from the governance survey with institutional statistics reported to the Federal Government (1985 Higher Education General Information Survey) for all colleges and universities in our sample, and 24,064 responses to their 1989 Faculty Survey for 219 of our 225 institutions.

Institutional Categories

We created a distribution of campuses ranging from those that were most externally constrained and centrally administered to those with the highest degree of campus autonomy and involvement by faculty and students, using the first three kinds of *who* items (i.e., budget and resource, educational policy, and faculty personnel). We assumed (and our preliminary analysis of the data confirmed) that student groups would have considerable responsibility for many student affairs matters, but very little influence over other types of decisions. Because financial, educational, and personnel decisions seemed to be more important to determining the nature and quality of the campus, we excluded student affairs items when developing our campus continuum score.

The distribution of campuses was created by multiplying the responses for external agencies (the governor/legislature, coordinating commission) times a weight of 2, multiplying responses for the governing board and chancellor of a multi-campus system times a weight of 1, multiplying responses for administrators times a weight of 0, using a weight of -1 for departmental faculty, and -2 for the collective influence of faculty and students through an advisory council/senate, town meeting, faculty union, student leaders and student judiciary. The weighted responses for budget and resource, educational policy, and faculty personnel items were summed, producing a normal distribution of campuses. Institutions that were more than 2 standard deviations above the mean were placed in category I. High External Constraint. The extreme

other end of the distribution was titled VI. Academic Community. Institutions that were one standard deviation above the mean were placed in category II. Strong Overseers.

Because private institutions experienced much less external control, there were fewer points to assign to off-campus agencies, and therefore their scores were systematically lower than those of the public institutions. However, Blau (1973) found that *internal* decision-making practices for public and private institutions were similar for educational policy issues (p. 165), faculty personnel matters (p. 173), and budget decisions (p. 183). In order to treat public and private institutions in the middle of the distribution similarly, it was necessary to differentiate among the remaining institutions on the basis of responses for *on-campus* agencies only. Therefore, the remaining 189 campuses were placed into categories III, IV, and V on the basis of the ratio of the president's influence in educational policy and faculty personnel matters to that of all other campus administrators, faculty, and students. In order to maintain the original shape of the sample distribution, all institutions with ratios above the mean of the on-campus ratio were placed in category III. High Presidential Authority. Campuses within one standard deviation below the mean were placed in category IV. Moderate Presidential Authority. The remaining institutions fell into category V. Shared Authority.

Analysis of Faculty Influence

For each of the 43 *who* items we computed the percentage of respondents who rated an agency or group as having the primary influence for that decision. For example, 57% of our respondents said that the president had the primary authority for allocating discretionary dollars to a department to improve the quality of academic programs. Similar calculations were made for the "some influence" ratings. Departmental faculty had 18% and a campuswide faculty advisory council/senate had 11% of the influence over discretionary allocation decisions. The weighted combination of the primary and some influence ratings resulted in 2% for the governing board, 38% for the president and vice presidents, 29% for the deans, 16% for department chairs, 7% for departmental faculty, 5% for the campuswide faculty advisory council/senate, and 1% for student leaders. The sum does not equal 100% for this item due to rounding.

Table 2 provides the subtotals for all 10 budget and resource items and the 12 educational policy items. Note that some of the 13 agencies and groups with very little influence were combined to simplify the presentation in Table 2.

Analysis of Faculty Satisfaction

One of the questionnaire items asked respondents to rate on a 5-point scale from "Strongly Disagree" to "Strongly Agree" whether they believed that "faculty are satisfied with the way decisions are made on campus." As with other questionnaire items, multiple ratings from the same campus were averaged across respondents.

Mean ratings for faculty satisfaction were correlated with the weighted campus continuum score. Analysis of variance was used to compare mean faculty satisfaction ratings for the six institutional governance categories along the continuum.

Following Blau's (1973) approach, we used stepwise linear regression to determine which variables were the best predictors of faculty satisfaction with governance. For the set of possible independent variables we started with the finding by Baldrige et al. (1978, pp. 62–67) that differences in governance were attributable to environmental relations, professional task, and campus size and complexity. In order to test the financial change hypothesis, we also included campus wealth and a rating of the financial context as independent variables.

- *institutional control*. (1 = public; 2 = private) This was our indicator of environmental relationships. There were only two "state-related" institutions — too few to analyze separately as a third category. Therefore, those two institutions were combined with the public institutions.
- *institutional type* (1 = two-year college; 2 = four-year college; 3 = doctoral-granting university). This was our indicator of professional task. It is highly correlated ($r = 0.80$) with a Research Orientation of the Faculty factor score, which was based upon hours per week in scheduled teaching, number of chapters published in edited volumes, publications in the last two years, hours per week spent on research and scholarly writing, and the number of graduate courses taught this term.
- *size* (total enrollment published in the *College Facts Chart*). We corrected for the skewed distribution of campus sizes by taking the natural logarithm of total enrollment. In order to take into account the lag effect of size on campus organizations we used the enrollment figure for 1985 (National Beta Club, 1986).
- *campus growth/decline* (percentage change in total campus enrollment between 1985 and 1990) (National Beta Club, 1986, 1991).
- *wealth* (average expenditures on instruction and academic support per student). We excluded HEGIS expenditure categories, such as research and auxiliary enterprises, that would not have been comparable across different institutional types.

- *financial change* (questionnaire item on the current campus environment). Respondents were asked to rate the current campus environment on a 5-point scale where 1 represented a "severe financial or leadership crisis," 3 indicated a "calm campus in a steady state," and 5 meant a "boom period with significant new resources and qualitative improvements." This subjective rating was chosen rather than actual budget changes because Peterson (1980) and Neumann (1995) indicated that the perception of resource declines can be more important to faculty morale than the reality.

Results

Question 1. How Much Influence Do Faculty Actually Have?

Table 2 shows the percent of "primary influence" and "some influence" ratings for various agencies across all 10 budget and resource items and the 12 educational policy items. For example, the president and vice presidents had 50% of the primary influence over budget and resource items, but only 27% of the primary influence over educational policy matters. The campuswide faculty advisory council/senate or town meeting had 12% of the "some influence" ratings for budget and resource items and 15% for educational policy matters. Row totals may not sum to be 100% due to rounding.

As predicted from the concept of "organizational dualism," the primary authority for final decisions exercised by faculty through their departments and through a campuswide senate, advisory committee, town meeting, or faculty union was higher for educational policy matters (33%) than budget and resource decisions (3%). Campus administrators (president, vice presidents, deans, and department chairs) accounted for 82% of the primary influence over budget and resource decisions. Consistent with the principle of "joint effort," however, faculty did participate in financial decisions. The "some influence" judgments over budget and resource decisions were 15% for departmental faculty, 12% for the campuswide faculty agencies, and 2% for faculty unions.

On the weighted combination of the "primary influence" and "some influence" judgments departmental faculty had 7% of the total influence over budget and resource decisions. Campuswide faculty agencies had 5%. Faculty unions had only 1%, but that number is somewhat higher (4%) when only campuses with unions are analyzed separately. On this weighted measure the faculty operating through their departments, campuswide agencies and unions, and students have as much collective influence (14%) as is held by the governing board and the chancellor of a multicampus system over financial decisions.

TABLE 2
Percent of Primary Authority and Some Influence Ratings for Budget & Resource and Educational Policy Matters

Type of Decision	Ratings of Influence	Agency or Group							Students %	Sum %
		Governor, Legislature, Coordinating Commission %	Governing Board & Multi-Campus System %	President & V.P.s %	Deans %	Dept. Chairs %	Dept. Faculty %	Campuswide Faculty Senate or Other %	Faculty Union %	
Budget & resource	Primary	2	14	50	22	10	1	1	1	0
	Some	4	14	9	18	23	15	12	2	3
	Weighted	3	14	33	20	15	7	5	1	1
Educational policy	Primary	2	9	27	17	12	18	15	0	0
	Some	3	11	13	17	20	16	15	0	2
	Weighted	3	10	20	17	16	17	15	0	2

The influence of the various agencies and groups for different kinds of decisions have been analyzed by institutional control, type, and size. Our intention is to report those findings separately. In general, our findings were in accord with previous research on governance in colleges and universities. Consistent with Baldrige et al. (1978, p. 63), for example, government agencies had more influence over public than private institutions, and these agencies had more influence over two-year colleges than universities. Like Blau (1973), we found that faculty had more influence over faculty hiring decisions at more research-oriented institutions (p. 173) and that differentiation of academic units increased with campus size (p. 51).

Question 2. To What Extent Is Faculty Satisfaction with Governance Related to Amount of Power and Influence?

Ratings of faculty satisfaction with the way decisions are made on campus were *not* correlated with the score placing the institution along the continuum from those that were the most externally constrained and centrally administered to those with the greatest autonomy and the most democratic decision-making processes ($r = -0.03$). Also, there were no significant differences among the six institutional governance categories in mean faculty satisfaction ratings ($F_{5,219} = 0.57, p > 0.05$).

We were surprised to find that faculty at institutions with Shared Authority or Academic Community forms of government were no more satisfied than their colleagues at institutions dominated by strong governing boards and campus presidents. Because two of our three campus raters were administrators, it was possible that we were not getting valid information about faculty satisfaction from the questionnaires. Therefore, we analyzed two related items from the 1989 Faculty Survey. One asked faculty to rate on a 4-point scale how satisfied they were with their relationships with the administration. The second asked faculty to rate on a 3-point scale how well the following statement described their campuses: "The faculty are typically at odds with the campus administration."

The responses to these two items from the Faculty Survey differ from the questionnaire item in several respects. First, the wording of the questionnaire item was broad enough to include all aspects of decision making on campus, including the campus administration, the senate, deans, etc., whereas the wording of these two items specifically addressed the administration. Second, there were 588 questionnaires and 24,064 responses to the Faculty Survey. Third, faculty members responding to the first item on the Faculty Survey were rating their personal level of satisfaction with the administration and, on the second item, the extent to which faculty colleagues were at odds with the administration; whereas the questionnaire item asked the president, the academic vice president,

and a faculty member to rate the general level of faculty satisfaction with campus decision making.

In spite of these differences, the Faculty Survey items were correlated with the questionnaire item. The correlation between the mean faculty member's rating of personal satisfaction with the administration and the questionnaire item was 0.39. The correlation between the questionnaire item and the mean rating of whether the faculty were typically at odds with the administration was -0.43 .

As with the findings from the questionnaire item on faculty satisfaction, neither of these items were correlated with the weighted continuum score ($r = 0.00$; $r = 0.01$). Neither were there significant differences among the six institutional governance categories on the satisfaction rating ($F_{5,213} = 1.4$, $p > 0.05$) or the "at odds with the administration" item ($F_{5,213} = 1.0$, $p > 0.05$).

Question 3. How Are Financial and Educational Policy Decisions Made?

Figure 1 compares the ratings for how budget and resource decisions are made at two-year colleges, four-year colleges, and universities. The hierarchical lens received the highest rating for budget and resource items at all three institutional types, but the collegial lens was also considered "somewhat descriptive." The ratings for the external ($F_{2,223} = 10.1$, $p < 0.001$) and bargaining lenses ($F_{2,224} = 7.8$, $p < 0.001$) were significantly higher at two-year colleges.

The organized anarchy lens was higher at universities ($F_{2,224} = 5.9$, $p < 0.005$), but the average rating was still "not descriptive" of the way budget and resource decisions are made. The surprisingly low score for the organized anarchy lens at universities may have been due to the inadequacies of the brief explanation included in the questionnaire. On the other hand, it may be an accurate reflection of the way financial decisions are made. Although in many respects universities are organized anarchies, most financial decisions having a long-term impact on the campus (e.g., tuition increases, overall salary increases, new buildings, departmental expenditures) are best explained with other lenses.

Figure 2 compares the ratings for how educational policy decisions were made at the three types of institutions. The collegial lens received the highest ratings at two-year colleges, four-year colleges, and universities, but the hierarchical lens was also "somewhat descriptive." The ratings of the external lens was significantly higher at two-year colleges ($F_{2,224} = 19.9$, $p < 0.0001$).

When asked to make a single choice, 78% of the respondents said that the hierarchy was the best descriptor of how budget and resource decisions are made, and 13% chose the collegial model. In contrast, 73%

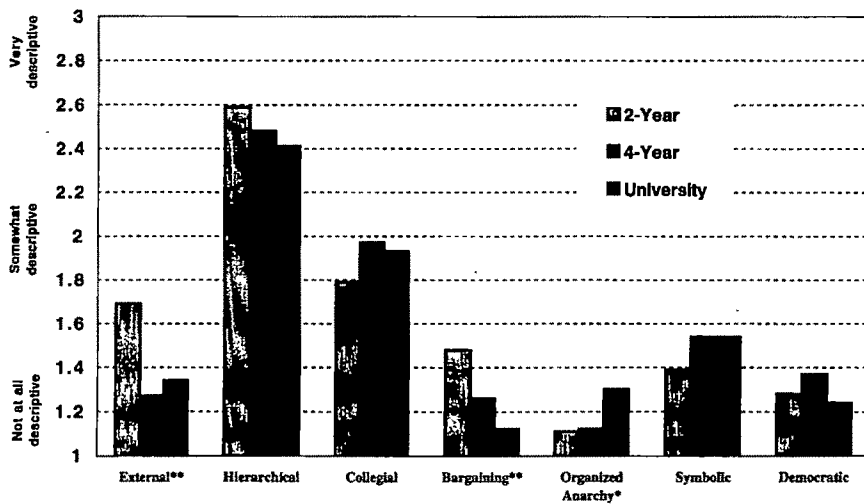


FIG. 1. How Budget and Resource Decisions Are Made
 $*p < 0.005$. $**p < 0.001$.

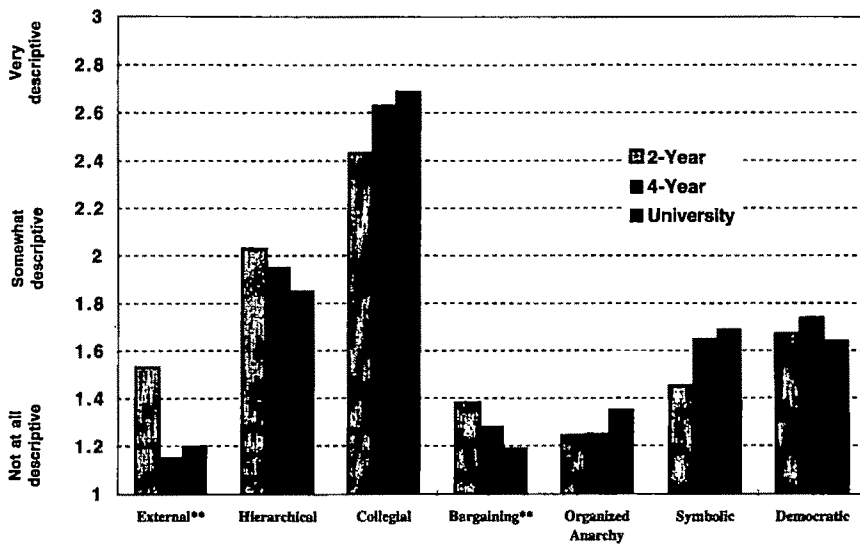


FIG. 2. How Educational Policy Decisions Are Made
 $*p < 0.001$.

thought the collegial model was the best descriptor of how educational policy decisions are made, and 20% selected the hierarchy.

Question 4. How Do Authority and Influence Shift During a Financial Downturn?

Table 3 compares the ratings for two of the individual budget and resource items. As with the subtotal for all budget and resource items shown in Table 2, the president and the deans have most of the primary authority for these two decisions:

- Determining how funds allocated in the budget will be distributed to various academic programs and departments on campus.
- Choosing areas for budgetary and programmatic reduction in a time of declining resources.

Comparing the ratings of “primary influence” held by the same agency or group across the two items gives an indication of the way authority shifts during a financial downturn that forces budget cuts. There was no change in the ratings of the “primary influence” held by the presidents and vice presidents. The primary influence of the deans and departments declined, whereas that of the governing board/chancellor and campuswide faculty senate increased.

Ratings of “some influence” were dispersed over more agencies for budget cuts than for regular allocation decisions. The influence of off-campus agencies, such as the governor, legislature, coordinating commission, governing board, and chancellor of a multicampus system, increased somewhat. The total amount of faculty influence stayed at about the same level. In fact, there was a small increase in the “some influence” ratings for the campuswide senate and faculty union. Also, there was a small increase in student influence.

Question 5. Does the Answer to Question 4 Differ by Institutional Type?

Table 4 provides the weighted combination of “primary influence” and “some influence” ratings by institutional type. The rows entitled “subtotal” are the same as the weighted rows in Table 3. The primary influence and some influence rows shown in Table 3 were omitted to simplify data presentation.

In general, the patterns noted above applied to two-year colleges, four-year colleges, as well as universities. Ratings of the power held by off-campus agencies were higher at two-year colleges, and the ratings of the deans’ authority were higher at universities. However, the shift from deans to off-campus agencies was found at all three institutional types.

TABLE 3
Comparison of Percent Primary and Some Influence Ratings for Regular Allocation Decisions with Budget Cuts

Type of Decision	Ratings of Influence	Agency or Group									
		Governor, Legislature, Coordinating Commission %	Governing Board & Multi-Campus System %	President & V.P.s %	Deans %	Dept. Chairs %	Dept. Faculty %	Campuswide Faculty Senate or Other %	Faculty Union %	Students %	Sum %
Budget allocations	Primary	0	2	63	30	4	1	1	0	0	101
	Some	1	13	3	19	31	16	16	1	1	101
	Weighted	0	6	38	25	15	7	7	0	1	99
Budget cuts	Primary	0	10	64	21	2	0	3	0	0	100
	Some	4	18	1	17	23	13	17	2	4	99
	Weighted	2	14	33	19	13	6	10	1	2	100

TABLE 4
Comparison of Weighted Influence Ratings for Regular Allocation Decisions with Budget Cuts by Institutional Type

Type of Decision	Institutional Type	n	Agency or Group									
			Governor, Legislature, Coordinating Commission	Governing Board & Multi-Campus System	President & V.P.s	Deans	Dept. Chairs	Dept. Faculty	Campuswide Faculty Senate or Other	Faculty Union	Students	Sum
			%	%	%	%	%	%	%	%	%	%
Budget allocations	Two-year	41	1	10	38	25	15	8	6	1	1	104
	Four-year	153	0	6	37	25	16	7	8	0	1	100
	University Subtotal	31	2	6	41	30	10	4	7	0	1	101
		225	0	6	38	25	15	7	7	0	1	99
Budget cuts	Two-year	41	5	17	32	17	13	7	7	2	1	101
	Four-year	153	2	14	33	19	13	7	11	1	2	102
	University Subtotal	31	2	14	34	23	11	3	11	0	2	100
		225	2	14	33	19	13	6	10	1	2	100

The difference between the influence held by off-campus agencies for budget cuts versus regular allocations was *not* correlated with institutional type ($r = 0.04$).

All three institutional types experienced small increases in the influence of the campuswide senate and students. The increased influence of faculty agencies and students was *not* correlated with institutional type ($r = -0.10$). In short, the combined primary and some influence ratings were more dispersed for budget cuts than regular allocation decisions at all three institutional types.

*Question 6. What Happens to Faculty Morale
in a Financial Downturn?*

Stepwise linear regression picked only one of our independent variables as a predictor of faculty satisfaction with the way decisions are made on campus: financial change. The simple correlation between these two variables was 0.34 ($F_{1,223} = 29.6, p < 0.0001, R^2 = 0.12$). Mean faculty satisfaction ratings for each of the five financial contexts were 2.3, 2.8, 3.0, 3.2, and 3.6.

In a similar manner, we also analyzed the two items from the Faculty Survey discussed above under the findings for Question 2. Stepwise linear regression picked two independent variables (size and financial change) as predictors of the mean faculty rating of satisfaction with the administration. The simple correlations of size and financial change with the dependent variable were -0.36 and 0.28 , respectively ($F_{2,216} = 24.8, p < 0.0001, R^2 = 0.19$). Faculty were more satisfied with the administration at smaller campuses and at campuses with an improving financial context.

Three independent variables (institutional control, financial change, and size) were picked by stepwise linear regression as predictors of the "faculty are at odds with the administration" item. The simple correlations of institutional control, financial change and size with this dependent variable were -0.25 , -0.24 , and 0.25 , respectively ($F_{3,215} = 9.4, p < 0.0001, R^2 = 0.12$). Faculty were less likely to be at odds with the administration at private institutions, smaller campuses, and institutions with an improving financial context.

Discussion of Findings and Implications

How much influence do faculty have on campus? Do presidents seize power during a financial crisis? What happens to faculty morale in a financial downturn? These have always been important questions, but they are taking on even greater significance in the 1990s, because higher

education has been receiving a smaller proportion of state general fund appropriations (Mortenson, 1994b), a trend that will probably continue as legislators reallocate funds to meet rising prison and health care costs (Levit et al., 1994; Mortenson, 1994a). Therefore, this study began by confirming our general beliefs about *who* decides and *how* decisions are made before describing changes in influence and morale when budgets must be cut and programs closed.

The concept of "organizational dualism" assumes that the faculty will have more authority for educational policy matters than for budget and resource decisions. Indeed, that is what was found. The faculty had considerable authority over educational policy issues; these academic decisions were made in a collegial manner. Presidents and deans had most of the authority for budget and resource matters, with faculty having 29% of the "some influence" ratings (i.e., the sum of the percentages for Departmental Faculty, Campuswide Faculty Senate, and Faculty Union in Table 2 was $15 + 12 + 2 = 29\%$). "Hierarchical" was the best descriptor of how financial decisions were made, but "collegial" was also rated as "somewhat descriptive" (cf. Figure 1).

Whereas the answers to Questions 1 and 3 were largely confirmatory, the findings on faculty satisfaction were not. Contrary to our prediction, faculty at campuses with Shared Authority and Academic Community forms of government were no more satisfied with governance than their colleagues at institutions that are externally constrained and centrally administered. The responses to our questionnaire item and the two items from the Faculty Survey all point to the same conclusion: faculty satisfaction with governance is *not* related to the amount of authority and influence they have, how much emphasis is placed on research, or how wealthy the campus is. Rather, faculty satisfaction with governance is primarily related to perceived changes in the financial context. Faculty at campuses with an improving financial context are more satisfied with governance than their counterparts at institutions in a financial downturn. In addition, our analysis of the two items from the Faculty Survey indicated that faculty were more satisfied with governance on small campuses. The implications of the two factors (the changing financial context and campus size) will be discussed further in the next section.

The second purpose of this study was to explain what happens to influence and morale during a financial downturn. Question 4 asked how authority and influence shifted when budgets had to be cut and programs closed. Ratings of the primary influence of presidents did *not* increase during a period of declining resources. There were signs of centralization, but rather than greater presidential authority we found a decrease in

the deans' authority and an increase in the authority of the governing board and other off-campus agencies.

Trustees have the ultimate authority for the institution, and even though they often delegate authority to the faculty for academic matters, they typically reserve the right to approve program closures (Dougherty, 1981). Because program closures, especially those involving faculty terminations, are certain to be controversial, formal action by the governing board provides another opportunity to consider the merits of the case. It may also help relieve some of the tension on campus among groups that must work together long after this particular financial crisis has passed.

We did *not* find that faculty had less influence over budget cuts than they had over regular allocation decisions. Rather, faculty and students gained a little influence. Instead of a greater concentration of power in the presidency, we found that declining resources led to a greater dispersal of authority and influence. In other words, centralization of authority during times of budgetary stringency is manifest in an upward shift of authority from the deans to the governing board, but it does not reduce the amount of faculty influence over financial decisions.

We did find some differences in governance attributable to institutional type. For example, off-campus agencies had more influence over two-year colleges, and fewer community colleges have campuswide senates than do four-year institutions. However, the same pattern was found when budget cuts were compared to regular allocation decisions at two-year colleges, four-year colleges, and universities. Power was more dispersed. Deans lost influence, whereas governing boards and other off-campus agencies gained. However, there was no loss of faculty influence.

Our findings were consistent with the Williams et al. (1986) study. They found that even though faculty participation increased, faculty morale dropped during a financial crisis. In order to maintain feelings of control over the environment, faculty typically attribute declining financial conditions to the president (Pfeffer, 1977). Although there are undoubtedly instances of authoritarian presidents and a lack of faculty consultation, many of which are reported to AAUP for possible censure, Mortimer and McConnell (1982, p. 162) were probably correct in saying that many well-intentioned presidents are unfairly blamed for circumstances beyond their control.

There are, however, at least three qualifications to this interpretation of our findings. First, even though our ratings of presidential authority did not increase for budget cuts over regular allocation decisions, administrators might not need any additional authority to restructure their

institutions along the lines suggested by Slaughter (1993) and Gumpert (1993). Indeed, Table 3 indicates that presidents have almost two-thirds of the primary authority for budget allocation and cut decisions.

Whether presidents are seizing authority during financial crises or merely exercising power they already have, there may be a widespread move by administrators to reshape their institutions along the lines of the political economy and to replace the professional values of the academy with business practices. However, acceptance of that generalization awaits more information about *what* is decided and *why* these changes are made, rather than *who* decides and *how* decisions are made. If, for example, Slaughter (1995) is correct that the restructuring of postsecondary education has the unintended consequence of penalizing women and minorities, then we might expect to find fewer women and minorities enrolled or working on campuses after the restructuring process is complete. The focus of this study, however, was not on the *what* and *why* but rather the *who* and *how* of campus governance.

Second, none of the studies referenced in this article collected longitudinal data for the same institutions over periods of steady state, financial growth, and decline. For example, we gathered information from a sample of institutions at one particular point in time and then compared perceptions of authority and influence for different kinds of decisions (e.g., budget cuts during a period of declining resources with regular allocation decisions). We also compared campuses that were under different financial contexts.

It is, however, possible that the campuses experiencing a boom period had collegial, authority-sharing presidents, but those institutions in financial crisis just happened to have authoritarian presidents who were reshaping their institutions with only token faculty involvement. It is even possible that their authoritarian style and lack of consultation contributed to the financial crisis. Support for those conclusions, however would depend upon longitudinal research well beyond the scope of the present study.

Third, as with many of the previous studies of governance (Baldrige et al., 1978; Blau, 1973; Carnegie Foundation for the Advancement of Teaching, 1982; Cohen & March, 1974; Platt & Parsons, 1970), our findings were based upon *judgments* of influence over different kinds of decisions. We did not observe governance in action at these campuses or collect source materials used in decision-making processes. Therefore, the ratings are imperfect estimates of actual practice. Even though we found interrater reliability, it is possible that our respondents were not accurately assessing what actually happens on their campuses. In defense of this type of research, however, the ratings seem to have face validity.

How Much Influence Should Faculty Have?

Looking back over the last half of the twentieth century, we see major changes in the financing of postsecondary education. In the 1950s and 60s the issue of faculty participation in budget and resource decisions was related primarily to planning for growth. Timeliness and responsiveness were not as important as process and fairness. The discussion shifted to across-the-board cuts and adjustments to cyclical forces during the steady state 1970s. By the 1980s there was a recognition that the financial downturns were permanent rather than short term and cyclical.

Unlike the 1970s, when faculty recoiled from program closure decisions (see Baldridge et al., 1978; Pondrom, 1981), faculty in the 1990s want to participate. The data from this sample of 225 American colleges and universities indicate that faculty do indeed have some influence over final decisions, even though the primary authority is held by the president, the deans, and the governing board. But do the faculty have as much influence as they *should* have?

Colleges and universities, to varying degrees of course, have long recognized the professional authority of the faculty, which derives from their specialized knowledge and expertise (Clark, 1987, pp. 150–153). Governing boards of the more research-oriented institutions, in particular, have assumed that faculty, as professionals with specialized training and experience, have a right to participate in decisions that affect the nature and quality of their working environment. Nothing inherent in the nature of financial decision making would diminish the value of that authority in a financial downturn.

Their first-hand knowledge of academic programs puts the faculty in a better position than most central administrators and governing board members to judge the impact of closing some programs or reducing services. Faculty participation might also have the benefit of reducing the disproportionate growth in administrative expenditures that some scholars have noted (Gumport & Pusser, 1995; Leslie & Rhoades, 1995; Zemsky & Massy, 1990). In addition, the faculty will have a better understanding of the changes in the campus environment and its future direction, if they have full knowledge of the new context and participate in the discussion of future possibilities. The latter point is especially important if postsecondary education is being racked by environmental jolts that have produced revolutionary change in many other industries (Meyer, Brooks, & Goes, 1990) and is about to enter its own period of restructuring at the end of the twentieth century.

The primary limiting factor on faculty participation in budget cuts and program closures is time. Schuster (1994) argued that higher education finds itself in an endless white water, that it must change, and that the

faculty are commonly criticized for clinging to anachronistic approaches and for being as swift as turtles moving through molasses. In fact, Griffith (1993) in commenting upon the "very long and time-consuming" process at the University of Maryland noted that the delays limited any immediate savings that could have been produced to meet the budget cut. Such delays may simply be impractical, especially when unexpected mid-year rescissions require quick decisions if the budget is to be balanced by year end (Austin & Gamson, 1983; Floyd, 1985). If, indeed, there is value in greater faculty participation in times of financial exigency, the challenge will be to devise less time-consuming processes for meaningful faculty participation in budget cut decisions.

The academic culture emphasizes process, deliberation, and fairness. Reflecting that set of values, Rhoades (1995) argued that "too often, institutions are so quick to jump into the process of assessing and prioritizing programs, and gathering the appropriate data about these programs, that they bypass the critical process of engaging in open, extended, and inclusive discussions of the future of the university." He recommended a more reflective and deliberative process that looked at the longer-range future of the institution. On the other hand, attention to the long term need not necessarily take a long time and insisting upon delays for more reflection and debate under crisis conditions might only lead board members and presidents to find ways to work around the faculty.

Even if faculty governance processes can be streamlined and provisions for meaningful participation developed, however, we should *not* expect relations to be harmonious on campus. Budget crises are highly contentious. They divide faculty from the administration and faculty among themselves. As with any other period of personal loss and grieving, faculty experience denial, fear, anger, anxiety, frustration, sadness, and nostalgia. The findings from this study suggest that tensions will be higher and faculty satisfaction with the administration will be lower at larger campuses and those experiencing a more severe financial downturn.

It might be possible, for example, to apprise all faculty of the reasons for changes in the financial context at a small college. Even when the downturn is devastating, the faculty of a small campus may pull together if they believe that circumstances are beyond the president's control (Peterson, 1980). Indeed, Neumann (1995) described the president of a financially strapped college who engendered trust by communicating regularly about finances. Faculty morale remained high, because the underlying financial factor was seen to be external and faculty believed that the administration was doing all that it could to support them.

At large campuses faculty have fewer regular interactions with administrators. Presidents seem distant; there are fewer opportunities to build

trust and mutual respect. Also, faculty governance on large campuses operates through representative bodies rather than "town meetings." Even if crisis conditions cause the president to call a campus faculty meeting, many will not attend and the nature of the large gathering will lead to more of a presentation of information than an open discussion among colleagues.

On a small campus, regular meetings of the faculty with the president might lead to consensus on the reasonable course of action, but that becomes unlikely as campus size increases. In fact, if the majority of the faculty were to become actively involved at a large university, for example, the process would probably grind to a halt. Even in the Maryland case, only one-twelfth of the faculty participated on the various committees.

However, that does not necessarily mean that the final outcome would be any different. For example, in a more recent article Slaughter (1995) reported that the pattern of program closures was one that the academic community generally supported. "Faculty usually made the same decisions as administrators if they were forced to choose which programs, departments, and fields would be cut and which would receive additional funds" (p. 38).

In addition to the impracticality of involving all of the faculty at a large campus, the findings from this study and that of Williams et al. (1986) suggest that faculty morale declines with the seriousness of the financial crisis. When a financial crisis is serious enough to require the termination of tenured faculty or threaten the survival of the institution, tensions can undermine civility and collegiality. In Maryland the decision was made to protect tenured faculty, but the entire process might have broken down if the budget cut had been deeper. Indeed, the difference between AAUP's censure of San Diego State University and the less contentious program discontinuance processes on other California State University campuses (Goldwhite, 1994) may well have been due to the president's initial decision to terminate tenured faculty.

The relationship between the severity of a financial crisis and the loss of faculty morale has important implications for higher education in the future. If prison and health care costs continue to consume an increasing proportion of state general fund budgets, we should anticipate further declines in morale and an increasing number of "no confidence" votes in the administration.

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A Subcultural Study of Gay and Bisexual College Males

Resisting Developmental Inclinations

Introduction

Lack of knowledge of the collegiate experiences of lesbian, gay, and bisexual students forms a significant gap in the higher education literature. Not only is there minimal research-based work in this area, some of the most prominent research tends to portray lesbian, bisexual women, bisexual men, and gay men as a homogeneous body, often grouping them under the common category of "homosexual." The assumption that lesbian, gay, and bisexual students share quite similar experiences has led to overgeneralizations about their lives and has compromised the quality of scholarship on such populations. In turn, this has contributed to campus policies and practices that are inadequately articulated and often implemented ineffectively (Rhoads, 1994). What is most needed at this time is in-depth knowledge of the diversity that exists among lesbian, gay, and bisexual students. Although their common struggle in the face of an oppositional culture has led to the loose formation of a "community" organized around the need for solidarity, such a common struggle ought not to be confused with a clearly articulated cultural enclave.

With the preceding in mind, I have three goals in this article: First, I seek to contribute research-based findings about the experiences of gay and bisexual college males. The focus is on issues of identity, as I utilize theories of culture to make sense of students' collegiate experiences. Second, in presenting a subcultural analysis, my intent is to highlight the diversity among gay and bisexual male students and thus resist the ten-

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dency toward monolithic portrayals of "homosexual" identity. I argue that understanding the diversity of students' experiences is crucial to the work of higher education researchers, faculty, and student affairs practitioners. Only through a commitment to understanding the complexity of students' lived experiences will colleges and universities be able to build the kinds of diverse learning environments needed for educating a truly multicultural society (Rhoads & Valadez, 1996; Tierney, 1993b).

A third goal of this article is to raise questions about the utility of developmental models of gay identity, such as stage theories advanced by Cass (1979, 1984), Coleman (1982), and Troiden (1979, 1989), among others. Although developmental models such as these are sometimes helpful in better understanding the general phases that lesbian, gay, and bisexual people may face, such perspectives also run the risk of misleading professionals involved in researching and/or educating lesbian, gay, and bisexual college students. Developmental models of "homosexuals" become problematic if they are used to particularize findings to specific individuals when, in fact, significant differences exist among lesbian, gay, and bisexual students. Thus, I use an ethnographic study of gay and bisexual college males to highlight some of the significant differences among these students. I argue that localized understandings are needed to offset the limitations of developmental stage models.

Student Culture and Identity

There are a multitude of theories about college students and their experiences that have proliferated over the past thirty years or so. From the early work on student culture and peer influence (Becker, 1963, 1972; Clark & Trow, 1966; Feldman, 1972; Feldman & Newcomb, 1970; Leemon, 1972; Newcomb & Wilson, 1966) to the more recent emphasis on student out-of-class learning and learning outcomes (Astin, 1993; Kuh, 1995; Kuh, Schuh, Whitt, & Associates, 1991; Pascarella & Terenzini, 1991) a variety of topics and developmental concerns have been addressed. This literature is immense, and any effort to summarize this body of knowledge here would be foolhardy and naive. There are, however, some key works that have paved the way for contemporary work on student culture and identity.

In terms of identity acquisition, the work of Erikson (1956, 1968), Chickering (1969), Perry (1970), and Kohlberg (1975) cleared some early ground for others to advance developmental understandings of identity processes. Although early identity theorists sought to explain behavior broadly across large segments of the population, recent theorists have examined more localized views of identity development.

These theorists have attempted to integrate cultural differences associated with race, gender, and age into explorations of identity and development (Baxter Magolda, 1992; K. Cross, 1981; W. Cross, 1991; Gilligan, 1982).

Research on cultural differences has, in general, provided much insight into some of the psychological, social, and cultural challenges related to identity and the collegiate context (Holland & Eisenhart, 1990; Rhoads, 1994; Tierney, 1992; Weis, 1985). Cultural diversity has brought about a renewed interest in student identity research and has raised fundamental questions about overarching developmental frameworks (Rhoads & Black, 1995). With this interest, researchers have begun to identify some of the significant gaps in cultural explanations of identity acquisition. This gap is most noticeable when one examines the limited knowledge about the experiences of lesbian, gay, and bisexual college students.

Only recently has research and literature on lesbian, gay, and bisexual college students appeared in the higher education literature (D'Augelli, 1991a, 1991b; Evans & Levine, 1990; Evans & Wall, 1991; Liddell & Douvanis, 1994; Rhoads, 1995a, 1995b). So little is known about the collegiate lives of lesbian, gay, and bisexual students that making recommendations to enhance their educational experiences is a hit-and-miss proposition. Hence a primary concern of this article is to provide a richer discussion of the collegiate experiences of gay and bisexual males.

Culture and identity are highly interactive concepts. The culture of a society influences the kinds of identities members embrace. Likewise, identity development shapes key aspects of culture. Social interaction is, of course, the vehicle through which culture and identity become so interwoven. As Geertz (1973) maintained, culture represents the common understandings among a group of people that form out of their social interactions and at the same time shape those interactions. In terms of lesbian, gay, and bisexual people, their struggle to develop a positive sense of sexual identity takes place within a larger cultural frame that situates heterosexuality as the norm and homosexuality as a deviant expression (Foucault, 1978). The normalization of heterosexuality has resulted in the socially enforced imprisonment of lesbian, gay, and bisexual people in what has come to be known as "the closet." Consequently, the struggle to develop a positive sense of self takes place within a hostile interactive context in which lesbian, gay, and bisexual identities exist in and are defined by their opposition to heterosexuality (Fuss, 1991).

Although college campuses tend to offer more liberal socialization contexts than most institutional settings in the United States, they

nonetheless also represent a restrictive environment for the acquisition of a lesbian, gay, or bisexual identity (D'Emilio, 1990; Herek, 1993; Nelson & Baker, 1990; Nieberding, 1989; Reynolds, 1989; Shepard, 1990; Tierney et al., 1992). Thus, the challenge for lesbian, gay, and bisexual students is to develop a positive sense of identity within an organizational culture that is generally hostile toward homosexuality. As a result, many lesbian, gay, and bisexual students turn to themselves for support and affirmation (D'Augelli, 1991a, 1991b). A sense of group identity emerges out of their extended and ongoing interactions, which tend to revolve around their general opposition to cultural norms associated with heterosexual privilege (heterocentrism). This sense of group identity and the related interactive forms may be understood as a subculture. In what follows, I delineate the strategy used to examine the gay and bisexual student subculture at Eastern University, a pseudonym for a large research university in the eastern region of the United States.

Methodology

Ethnographic techniques were used to explore the experiences of gay and bisexual college men at Eastern University during parts of the academic years from 1991 to 1993. For Geertz (1973), ethnography seeks as its goal what he described as "thick description," which most often is achieved through extensive and intensive involvement in the culture of a group under study (in this case a student subculture). Participant observation, formal and informal interviews, key informants, and document analysis were used as part of this study. The use of multiple data collection methods provides opportunities for the ethnographer to cross-check one's findings — a process that Denzin (1989) discussed as "triangulation." The formal interviews followed methods for ethnographic interviewing suggested by Spradley (1979), in which descriptive, structural, and contrast questions were developed. The interviews were tape-recorded and transcribed verbatim.

"Getting-in" is a term ethnographers use to refer to the process of establishing trust within a specific community or culture (Fetterman, 1989). In terms of this study, the first step in gaining acceptance was to participate in meetings of the Lesbian, Gay, and Bisexual Student Alliance (LGBSA), the formal organization that arguably forms the center of the gay and bisexual student subculture. Several meetings were attended before a formal presentation was made in which the intent of the study was discussed.

At the initial presentation to LGBSA, the names and phone numbers of 10 students who were willing to be part of the interview process were

collected. Student interest grew as the study progressed, thus making it easier to find students to participate in interviews. This sort of sampling amounts to what Patton (1990) described as "snowball" sampling and is likely the best procedure available when the universe of the population under study is largely unknown. All in all, 40 students were interviewed and 30 were active participants in LGBSA. The other 10 were referred to me by LGBSA members or were individuals I met in other social settings.

The sample is composed predominantly of juniors and seniors as well as some graduate students. The skewed nature of the sample reflects the fact that college students are more likely to be "out" as their academic career progresses. The breakdown of the sample is as follows: 8 graduate students, 17 seniors, 10 juniors, 2 sophomores, and 3 first-year students. Although this sample is certainly not reflective of the overall gay and bisexual male student body, it may closely resemble the overall population of out male students at the university. I should also note that the graduate students interviewed were similar in age to the undergraduates: The average age of the 32 undergraduates was 22.2 years and the average age for the 8 graduate students was 23.6. Also, 93% (37/40) of the interview participants were within four years of the overall sample mean age of 22.5.

All of the students who participated in interviews identified either as gay (32) or bisexual (8). Additionally, although all 40 of the students involved in this study were "out" to one person or another, 5 students were out to so few people that they still classified themselves as "closeted" — a state of hiding one's self-acknowledged sexual identity. In terms of a racial breakdown of the sample, 7 of the students interviewed were from underrepresented minority backgrounds.

In analyzing the data, I did not look for patterns that would assist me in developing predictions about the behavior of gay and bisexual students. Instead, in the manner in which Rosaldo (1989) and Geertz (1973) approach cultural analyses, I too was in search of meaning. However, in the quest to construct meaning one must acknowledge that the theory and a priori assumptions a researcher adopts shape the way in which data are collected and analyzed (Tierney & Rhoads, 1993). Going into this study I had certain questions in mind: What does it mean to come out? Why do some students become politically active? What role does the gay community or subculture play in terms of identity acquisition? These questions are reflected in the interview protocols and form themes around which the data were later analyzed. Although I had certain questions in mind going into the study, others surfaced later (such as questions about "queer" identity). The emergence of these questions and related categories falls in line with Patton's (1990) idea that the group-

ing of data is an inductively derived process whereby salient patterns emerge from the data. Additionally, a student advisory panel composed of seven gay and bisexual students was used to guide the research process and help interpret a variety of complex aspects of the gay and bisexual student subculture. The use of the advisory panel served as a form of member check (Lincoln & Guba, 1985).

Findings

Traditional treatments of culture have often focused on points of commonality as a means to generalize about the group under study. Such analyses often fail to portray the significant points of tension existing within most cultural enclaves. Therefore, in discussing the gay student subculture at Eastern, I focus on common connections, or what I term "webs of connection," as well as differences, described as "points of tension." Before elaborating the "connections" and "tensions," I introduce four students whose experiences are helpful in making sense of the findings.

Student Portraits

Andrew Lemke. For Andrew Lemke¹ the most frightening thing about coming out as a gay man was telling his parents: "I think I stayed closeted because I knew I could never come out to them. I was like, 'There's no way.' That was just it for me, and I think it's a similar experience with a lot of people." Even though Andrew never self-acknowledged as gay until his first year in college, in high school he felt he was keeping something from his family. "I always felt that I wasn't really being honest with my family. Especially with my father. I mean, I always had a pretty strange relationship with him just because I felt uncomfortable."

Andrew will never forget coming out to his parents. He came out to his sister during his first year in college, and she was fairly accepting. Later that year Andrew's mother questioned his sister during a phone conversation about why he had broken up with his high-school girlfriend. Finally, his mother came right out and asked: "Is Andrew gay?" Andrew's sister nearly dropped the phone. After the long silence, she did not need to answer. Andrew's parents jumped in their car and began the three-hour trip from home to Eastern University. In the meantime, Andrew's sister called and warned him that they were on their way. Andrew's parents took the news better than he had imagined. "Once my parents knew, life was a lot easier. From then on everything was easier." He became more involved in the gay community at Eastern as he developed a network of support. "I started to get really involved with LGBSA and I started to do a lot of political work. At that time, we were trying to

get the sexual orientation clause passed. That was our main project. I really got involved with that." Andrew worked on the sexual orientation project for more than a year and eventually was elected to a leadership position within LGBSA.

For Andrew, everything about being gay is political. Eventually, he began to identify as "queer," which for him suggests a greater commitment to the cultural politics associated with the heterosexual/homosexual dualism. Identifying as queer is Andrew's way of stressing the political side of gay identity. He gets frustrated with other lesbian, gay, and bisexual students at Eastern who are not out or who will not become politically involved. "I don't want to be the embodiment of what it means to be queer, but I also want people to realize that every time they're ashamed of who they are, they send that impression to other people." On some days he gets angry. On others, he sees no point in blaming people within his own community: "I mean, they're victims. It's like blaming the victim. I guess I should really blame the people who are causing us to be closeted and hate ourselves."

Although Andrew identifies as a gay/queer man, he expressed considerable concern over having to define himself based on his sexual orientation: "I describe myself as gay. But, you know, the whole idea of creating categories kind of bothers me." Andrew believes that because of the oppression faced by individuals whom society labels as "homosexual," identifying publicly is necessary to battle marginality. Adopting a politically oriented queer identity is one way Andrew believes he can fight gay marginality.

Deandre Witter. Deandre Witter contrasts the serious political perspective Andrew brings to his sexual identity: Deandre depends upon a biting sense of humor to survive in a heterosexist world. For example, in discussing his career goals, Deandre responded in a cynical and light-hearted tone: "I'm going to be a French teacher and a full-time prostitute." Many of the gay and bisexual students who know Deandre seemed to think that he has the personality and good looks to make a lot of money if he chose the latter profession.

Deandre recalls having same-sex attractions early in life. "Even in elementary school I felt weird changing in front of boys. Maybe it didn't become real until around eleventh grade." He also discussed his childhood and his relationship with his family: "I basically was very temperamental. I never got along with my parents. As I look back, I think my sexuality was probably the cause of my poor relations with them. There was always this thing that they didn't know." Deandre is still not out to his parents, although he knows they suspect. One time while staying at home he left his driver's license at a gay bar and someone from the

bar called Deandre's house. When his dad found out, he asked Deandre what he was doing at that "faggot" bar.

Deandre does not like to identify as gay or bisexual: "I don't describe myself. I'm attracted to men and I could be attracted to women." He went on to explain: "I hate words and definitions. You can never stick to them. They are like a New Year's resolution. Once you start to attach labels to something it makes you want to get away from it that much more. I feel that once I accept a label then that's what I have to be. Like if I said I was gay to my parents, then that's what I would always be to them."

Deandre is only out to people with whom he shares a close bond: "Coming out is not a public thing with me. It's personal." He rejects most notions of what it means to be gay and refuses to wear gay-identifying symbols. Deandre responded to a question about how he would feel walking with someone else who was wearing a pink triangle on his or her clothing: "I'd be embarrassed to be with that person. It represents weakness. That you have to prove to yourself that it's ok to be gay. They're basically trying to convince themselves that it's ok." He does not agree with most of the politics of the Lesbian, Gay, and Bisexual Student Alliance (LGBSA) and other queer students: "I think a lot of people get upset and put off by the symbols, the newspaper articles. People are really turned off by this stuff and it ends up doing more harm than good."

Roman Washburn. Like Andrew Lemke, Roman Washburn is also firmly rooted within the gay student subculture at Eastern. Whereas for Andrew such an experience has been almost entirely positive, for Roman it has brought about significant problems. He sometimes wonders if he might be better off closeted.

Roman is an African American student who is very open about his identity as a gay man, although getting to this point has been a long struggle. "I remember one of my friends literally pulling me out of the closet. Finally, I was happy. I could let myself be attracted to men. After all those years of denial." Although some things got better for Roman after coming out, everything was far from perfect. "What was bad was that I didn't talk to my father for three months. I knew he would be able to tell something was wrong, and I wasn't ready to let him know." When Roman finally told his father, he soon found out that his father was more accepting than he had anticipated. His father's biggest concern was whether or not Roman was practicing safe sex. Roman assured him that he was. "We talked about what it means to be gay, and he was pretty cool and supportive. It's funny, but now we talk all the time, probably a couple of times a week, which is way more than before. He teases me sometimes about being a wimp and telling him over the phone." Roman also

talked with his father about the possibility of coming out to his mother, but they both agreed that it was better not to tell her. "She's a fundamentalist Christian. We're afraid that she'll quit her job and stay at home and pray all day for me."

But one of the largest problems Roman has had to face is the feeling of divided loyalty between his commitment to the African American community and to the gay community. Roman has found that to identify too strongly with one is to risk membership in the other. In a very real sense, Roman has had to learn to straddle two significant identity communities, often feeling like an outsider in both. "It's kind of like dealing with two forms of oppression. My job is doubly hard. I have to help educate not only the straight community about gay issues but I also have to educate the Black community, and that's next to impossible. Homophobia is really strong within the Black community."

Jerry Sandaval. "Wow! What's going on here? I'm not different from anyone else. That's not right." These were Jerry Sandaval's thoughts on a day back in eighth grade when his girlfriend broke up with him because students were saying he was gay. Jerry was confused. Their accusations made no sense to him. He played sports like other boys: "I played soccer in eighth grade. I couldn't see myself fitting the stereotypical gay." For Jerry, being gay meant hanging out with girls and playing with dolls, the "sissy-boy" syndrome; Jerry was into sports, so how could other kids think he was gay?

Nearly ten years later, his junior high and early high-school experiences began to make sense to him. "Looking back now, I was screaming gay. But you know, I just didn't see it at the time." Jerry became sexually involved with a male friend while in high school, but it was not until he developed strong emotional feelings for another friend that he first truly questioned his sexual identity: "It was during the end of eleventh grade that I had a very difficult period. I was falling for a really close friend of mine. That's when I first started thinking that I might be gay."

Although Jerry identifies as gay, deep inside he feels he is really bisexual: "I realize that I'm capable of feelings for people of both genders. I just choose to be involved with men. I guess I have a lot of internalized biphobia. Bisexuality is even less understood than being gay." Jerry has plotted his attractions in his head, and every four months or so he meets a woman who intrigues him enough to consider dating her. "Occasionally I go for it. But mostly I just try to ignore it." One of the reasons Jerry has decided to push away his attractions for women is the pressure he feels from the gay community to only date men. He explained that there is little tolerance for bisexuals while they are dating members of the opposite sex. "They are seen as 'sell outs' by many within the community."

Webs of Connection

To constitute a subculture, a group of people must have shared meanings that differ in some way from the larger cultural body in which they are situated and which are manifested through their social interactions. Again, culture frames the narratives people weave and, in turn, is reconstituted by those narratives. Thus, to examine culture or subculture from such a perspective requires coming to terms with the meaning people give to particular practices. In examining gay and bisexual male students at Eastern, I emphasize an interpretive view of culture framed by three important qualities of students' interactions that emerged from the analysis of observational and interview data: *space* — sites of social interaction, *style* — nature of social interaction, and *substance* — content of social interaction. In other words: Where do gay and bisexual male students interact at Eastern, and why are the physical spaces relevant? How do their interactions differ from the heterosexual culture and what is the significance of any differences? And, what do their interactions concern that might shed light on their lived experiences as gay or bisexual male students?

Space. Observing students "hanging out" in bars, coffee shops, diners, or even street corners is a common sight in any college town in the United States. Like other students at Eastern, gay and bisexual students also congregate in public settings. But while on a superficial level their interactional patterns may be similar, there is an underlying subtlety to many of their actions. The significance of being seen in public has little relevance to one's sense of autonomy or freedom for most heterosexuals who do not face the possible confines of the closet. But for gay and bisexual students, hanging out is in part a signification to both a heterosexual society and a gay community that lesbian, gay, and bisexual people exist. To the heterosexual world (mainstream culture), hanging out may be interpreted as an act of defiance against the social confinement of the closet. To a gay world (gay subculture), hanging out may be seen as a way of building community, of letting others with same-sex attractions know that they are not alone.

There are five primary locations in the downtown section of the town in which Eastern is located where gay and bisexual men are highly visible: a dance club, a gay bar, two coffee shops, and a diner. The dance club is occupied almost entirely by lesbian, gay, and bisexual students on Sunday nights, which have been designated as "Alternative Lifestyle Nights." On other nights, the dance club becomes contested terrain and gay and bisexual males dancing in groups face the possibility of being physically assaulted. Although the dance club is contested space (with the exception of Sunday nights), the gay bar next door is entirely gay

space and few if any heterosexuals ever frequent this location. The two coffee shops and the diner are accessible to all students and patrons but are especially popular among gay and bisexual male students, who see them as having "a kind of Bohemian atmosphere, kind of the European idea of the coffee shop as a place for marginalized people — intellectuals, artists, queers," explained one student.

Style. There is an attitude of style that some gay and bisexual men at Eastern bring to their public lives. Some discuss this behavior as "camp," "camping," or "camp culture." Camp essentially depicts an attitude toward one's sexual identity and how identity gets enacted in public. More specifically, camp involves acting in a flamboyant and effeminate manner. Jerry Sandaval discussed how he occasionally acts with a group of his friends: "I don't think of myself as a screaming queen but I do think of myself as fairly effeminate. Sometimes when I get with a group of friends we get very campy." Jerry described camp as "being a flaming gay person acting out all the stereotypes." He went on to point out that sometimes he and his friends camp it up just to get a reaction from straight people. He gets "pissed" at other gay students who do not like to hang out with Jerry and his friends when they camp it up.

For other students, camp is a source of identity to which straights do not have access. One student elaborated on camp culture and on his impressions of straight people: "I have this attitude that gays are more refined, more cultured, more mature, more intelligent than straight people. I know it sounds a little condescending but sometimes I think it's true. I mean sarcasm and cynicism go right over most straight guys' heads." This student went on to add, "Camp follows the rule that if we didn't laugh about it or make fun of something we would probably have to cry. It's a form of cynicism that allows us to kind of celebrate that we are different."

Most of the students in this study who are into camp argue that camp culture offers visible evidence to the straight world that gays exist. In this regard, camp is seen by some students as a political and cultural strategy to achieve greater visibility. However, it is safe to say that most out gay and bisexual students at Eastern are not into camp and that some are quite "turned off" by camp culture. "Feminization" is the word one student used in reference to gay and bisexual men who for whatever reason "somehow need to act like women." This student elaborated: "Sometimes the 'flamers' feminize their behavior and it really bothers me. I mean I sit around and watch hockey games and drink beer and I don't see anything wrong with that." Although only about 15 of the 40 men interviewed as part of this study are into camp, the phenomenon itself represents a form of expression that nearly all members of the gay subculture understand and recognize as unique to them.

Substance. Many of the students I interviewed indicated that they have different types of interactions depending on whether they are with straight friends or gay friends. Jerry commented, "I spend a lot of time in both communities and the subjects of conversation are definitely different. Almost all my conversations with gay friends are about being gay and the politics of it. It's very strange to have a conversation where gay issues don't come up." Deandre enjoys conversing with straights more than with other gay students: "With my gay friends our conversations are much more commiserating."

One student described conversations with gay friends as "a lot more explicit and sexual. We talk about other interesting things too, like politics, but they are just more open to things that many of my straight friends seem to have a hard time talking about." A second student claimed that there is a lack of common ground between gays and straights: "There are topics that just do not come up amongst straight students." This student, as well as several others, expressed the view that gay and bisexual men are more open when it comes to discussing issues related to sexuality. Another student offered the following perspective:

I talk about sexual things and experiences with gay friends. With straight friends I try to joke more about women, or who someone is dating. Where if I'm with a gay friend I'll tease him about some guy: "He's checking you out." So I monitor my communications out of respect. That's different than watching what you say when you're closeted. Then it's more out of fear to protect yourself. I like being respectful about sexuality.

The fact that discussions among gay and bisexual men often focus on issues of sexuality and sexual identity is hardly surprising given the fact that the source of a stigmatized identity tends to take on immense psychological salience (Goffman, 1963).

Points of Tension

Although many of the out gay and bisexual males at Eastern identify with one another to varying degrees and have developed their own cultural forms, there nonetheless are significant points of tension that also define the subculture. Three points of tension stand out: gay politics, racial differences, and issues related to bisexuality.

Gay Politics. Deandre Witter and Andrew Lemke highlight the range of commitment of gay and bisexual male students to the politics of gay identity. Deandre reflects in many ways the idealized position in which "homosexuality and heterosexuality would cease to be viewed as separate conditions, the former being a perversion of the latter, but would be seen rather as components of us all" (Altman, 1971, p. 89). Deandre refuses to permanently identify himself as a gay man although he ac-

knowledges that his primary attractions are for men. But in his words, "I could be attracted to women." Andrew also recognizes the lack of logic in categorizing people as gay or straight: "But, you know, the whole idea of creating categories kind of bothers me." Both Deandre and Andrew see heterosexuality and homosexuality in a manner akin to social constructivists, who argue that such categories are socially imposed and therefore can be rejected through social and cultural resistance (Butler, 1990, 1991; Halperin, 1990; Kitzinger, 1987). However, Andrew also recognizes what gay/queer activists and theorists have noted in their work: Organizing around gay identity — even if it is socially constructed — provides opportunities to create change through social and political pressure (Berlant & Freeman, 1993; Epstein, 1987; Patton, 1993; Seidman, 1993; Warner, 1993).

At Eastern, the struggle between constructivist tactics calling for the rejection of sexual identity categories altogether and the politically oriented strategy of embracing one's gay or queer identity gets played out around issues of visibility. For example, one student described the gay community as the "visible gay community." He went on to note: "I mean if you're not out how can you identify with the rest of the community? I didn't until I came out. I see the community as those who contribute. I think it is those people who participate in some way or who contribute in some way to group life." The comments from the preceding student capture a degree of the resentment some of the politically active students have for other lesbian, gay, and bisexual students who are not actively involved in queer politics (often described by queer students as "social fags"). As one student explained, "Those people who will come to the parties and go to the dance club on Sunday night but who won't do anything political are parasites soaking the rest of the gay community. They either don't realize it or they don't care that their actions have ramifications for the entire gay community and that when they choose to remain closeted we all suffer."

But many other gay and bisexual males reject queer politics. As one student opined: "It goes back to political affiliation and stereotypes. Whenever you hear of a queer political event it's basically looked at very negatively, because you always think of Queer Nation or ACT-UP and they all have the 'shove it in your face' kind of attitude." This student prefers a slower, more educational approach. "Maybe there have to be two different approaches, but I think queers turn a lot of people off and they make themselves a lot of enemies. I don't think we need any more enemies."

Racial Differences. Disagreement over political strategy is not the only source of tension within the gay student subculture: Racial differ-

ences also challenge the solidarity of the group. People from diverse racial backgrounds face significant barriers in identifying with the gay community, a finding also reported by Sears (1991). An African American student discussed the difficult choice that faced him when he came out: "When I came out as a bisexual man I disowned all my Black friends with whom I had been politically active. I thought they would reject me when they found out so I didn't give them the chance. I rejected them first. Most of my friends then became White people in the queer community."

If, however, a gay or bisexual student of color decides to maintain dual identities, he is likely to experience difficulties as well. Recall Roman Washburn's comments when he described having to deal with two forms of oppression and having to help educate both communities. Roman also called attention to a serious problem other African American students raised: the pervasiveness of homophobia within the African American community. As another student explained, "Black people in general don't have a history of being very accepting of gays within their community. So that presents a problem because we face alienation for being Black in relation to the whole society and alienation within our own community — the Black community — because we are gay." This student went on to offer his own theory:

I think this relates to the fact that Black men have in many ways been stripped of their masculinity by a White dominated society that tends to demean what they accomplish. Within the Black community then there is this related attitude that being gay or bisexual is giving in to White society — we are seen as willingly giving up our masculinity. They fail to realize that being gay is not a choice and on top of that, it has nothing to do with being masculine or feminine.

The preceding student underscores how issues of sexual identity and gender often are interwoven. Adding to the complex maze that is gender and sexual identity is what one student described as the "feminization of gay identity" revealed most vividly through camp culture. Although camp may be interpreted as a form of resistance to restrictive gender codes (Pronger, 1992), such behaviors also may reinforce (in some people's minds) the idea of "gender inversion" — that gay men are more like women than they are like men. The irony is that the mythology of gay identity, represented by ideas such as the "gender inversion," may get reproduced through resistant political and cultural activities, such as camp.

Homophobia is by no means unique to the African American community. Other students from diverse backgrounds also face similar fears within their respective communities and families. An Asian American student involved in this study talked about the idea of coming out to his

family: "No they don't know. That's the hardest part. I think for Asian people continuing the family is very important and for me to come out as gay would seem like a threat to our family." Another student, who identifies as a Puerto Rican/Hispanic, commented about his perception of homosexuality in his homeland:

As long as it's kept secret and not discussed in the public, then no one seems to care. As long as queers appear "shamed" and remain hidden, everything is ok. But come out and go public, create noise, and the church and all the conservatives will go to lengths to put "homosexuals" back in their proper place — the closet.

Issues of Bisexuality. Within the gay student community at Eastern, as in any other community, hierarchies have evolved. One such hierarchy is the higher status often accorded being gay as opposed to being bisexual. Earlier in this article I introduced Jerry Sandaval, who alluded to biphobia when he noted that he identifies as a gay man even though he knows he has some opposite-sex attractions. "I am making a choice to be gay which I do mostly for political reasons. I think it makes a stronger statement if I say I'm gay." Another student added, "I think being a bisexual confuses a lot of people because they tend to think you're either gay or straight. Sometimes you get the feeling that people think 'I wish he would decide.'"

One student described himself as a closeted bisexual man. This student believes that a lot of bisexuals either stay closeted or, more likely, continue to claim they are straight and brush off feelings for the same sex because of what it means in our culture. "There is no real room in our culture for falling anywhere in the middle. There is a lot of pressure to be one or the other." A second student supported this view: "I think because of the politics of it all it's much more difficult for a man to come out and say he's bisexual. Being a bisexual man is second rate compared to being a gay man. It's like if you're going to do it you might as well go all the way." This student believes there are a lot of men within the gay community who would come out as bisexual if it were not for the pressure to be gay. "It's a conforming sort of thing." Besides Jerry, another student stated up front that he believes he is bisexual but for political reasons identifies as gay/queer.

Few issues within the gay community highlight the complexities of sexuality more than bisexuality. Some students argued that sexuality is flowing, and that bisexuality is one indication of how people move from straight to gay or vice versa. Others disagree and see bisexuality as one of three fixed sexual orientations, along with homosexuality and heterosexuality. A third stance was offered by four or five students who argued that everyone is bisexual, some of us just lean in one direction or the

other. The third perspective has gained significant support among sexual identity theorists such as Altman (1971) and others who tend to see sexual attraction as largely socially constructed.

Discussion

The lives of Andrew Lemke, Deandre Witter, Roman Washburn, and Jerry Sandaval have been introduced not as "ideal types" in the Weberian sense of the phrase. These students do not represent larger categories into which we might cast other gay and bisexual males. Instead, their stories have been discussed briefly as a means to highlight some of the connections and points of tension among gay and bisexual males at Eastern University. Andrew and Deandre highlight the diversity of student commitment to gay liberation and to what Andrew and others call "queer politics." While Andrew is one of the leaders of the queer student movement at Eastern, Deandre wants nothing to do with the politics of gay life. Roman calls attention to how racial identity issues are often a source of dual conflict for gay and bisexual students of color. The challenge Roman faces is balancing his identification with two psychologically salient communities — the gay community and the African American community. And finally, Jerry raises the issue of bisexuality and its marginal location within the gay community at Eastern. As a consequence, some of the gay-identified students who may have strong attractions for both men and women often choose to keep their attractions for women hidden.

Despite the unique experiences of the 4 students highlighted in this article, as well as the 36 others who participated in interviews, there is clearly a common bond among these students contributing to a group sense of identity that may be understood as a subculture. The subculture exists to a large degree through the social and political organizing of the male members of LGBSA (female members of LGBSA organize as well, but like the males they tend to focus on the needs of their own gender). LGBSA plans and implements nearly all of the cultural events that bring gay and bisexual males into contact with one another and into social and political contexts where a sense of group belonging is made possible. It is for this reason that I argue that LGBSA forms the center of the gay and bisexual student subculture. This does not mean, however, that all students are equally committed or connected to the subculture. Andrew, for example, is very committed and closely affiliated with the subculture; Deandre, on the other hand, refuses to formally identify with politically oriented students such as Andrew and would never think of attending an LGBSA meeting. Nonetheless, he participates in many of the social activities planned by the organization. Furthermore, while Deandre rejects

"queer politics," he also enacts a variety of oppositional behaviors associated with camp. For example, he prides himself on his "gay cynicism," which he often displays in public settings such as the diner.

One of the goals of cultural research is to shed light on the common understandings that help to connect various individuals to a larger social collectivity or cultural enclave. In examining the lives of students such as Andrew and Deandre, one of the common connections is their oppositional stance toward the privileged position of heterosexuality, which is manifested in the meaning they bring to the public *space* they occupy, the *style* in which they communicate, and the *substance* of their interactions. Here it is necessary to distinguish between common behaviors versus common understandings. It is not the case that every student in the gay and bisexual student subculture "camps it up" at the diner. What is closer to the truth is the likelihood that every student has some understanding of camp and the intricate meanings that are not always accessible to straight students. Again, interpretive research focuses on the meaning individuals bring to their social experience and the fact that camp is understood and interpreted by the gay and bisexual males in this study in similar ways offers insight into some of their cultural connections.

An important reason to pursue a subcultural study is to offer a depth of knowledge about the diversity of human experience. One of the shortcomings of research on lesbian, gay, and bisexual students is that it has failed to come to terms with diversity as it has predominantly sought universal explanations of "homosexual" development. In this regard, the work of Cass (1979, 1984), Coleman (1982), and Troiden (1979, 1989) has gained much credence among higher education practitioners and scholars. In brief, Cass argues that homosexuals typically pass through six stages: confusion, comparison, tolerance, acceptance, pride, and synthesis. For Coleman, there are five stages: pre-coming out, coming out, exploration, first relationships, and integration. Troiden offers four stages: sensitization, identity confusion, identity assumption, and commitment.

Summary Chart of Homosexual Identity Stage Theories

Vivienne Cass (1979)	Eli Coleman (1982)	Richard Troiden (1989)
1. confusion	1. pre-coming out	1. sensitization
2. comparison	2. coming out	2. identity confusion
3. tolerance	3. exploration	3. identity assumption
4. acceptance	4. first relationships	4. commitment
5. pride	5. integration	
6. synthesis		

Although these theories certainly offer insight into identity development, they run the risk of being treated as normalized visions of "homosexual" identity. I offer an example by focusing on aspects of the Cass model, which arguably has been the most influential in research and work related to college students.

Cass discusses stage 5 of her model as the "identity pride" stage. At this point in development, the person casts aside the negativity expressed by the larger society toward homosexual identity and begins to embrace him- or herself as a lesbian, gay, or bisexual person in a proud or even defiant manner. This quality of identity was seen in many of the "queer" students in my study who described being queer as "an in your face attitude toward being gay." However, this stage is not seen as a "mature" homosexual identity by Cass. Instead, identity pride is a stepping stone to a synthesized identity where some of the anger of having been relegated to the closet by an oppressive society is reconciled. Cass implies that queer students such as Andrew need to work through their hostile attitudes and achieve a less radicalized sense of identity. But such an analysis fails to recognize the need for diverse identities within lesbian, gay, and bisexual communities and the desirability of at least some individuals retaining a strong sense of pride and even anger toward social inequities. After all, it takes committed individuals to take on some of the tough work of social and cultural change and perhaps a bit of hostility is helpful. The model suggested by Cass implies a degree of assimilation on the part of lesbian, gay, and bisexual people, who, in the end, must acquiesce to the way things are.

When one considers the fact that a model such as the one offered by Cass is in fact used by practitioners and scholars in interpreting lesbian, gay, and bisexual lives, one begins to recognize the dangers of misapplication of stage models and the need for a greater depth of knowledge. The criticism offered here also underscores the fact that theory not only reflects the social world, ultimately it plays a role in reshaping social life as well. If a gay student is considered to be at stage 5 in the Cass model, he may be directed by an informed practitioner (acting upon information revealed through research) to work to achieve a more synthesized and less radicalized identity. Obviously, such efforts on the part of practitioners and researchers have serious implications for gay liberation and the struggle for cultural change.

Developmental theories such as "homosexual" stage models also can become the governing standard by which lesbian, gay, and bisexual students are judged, and those who do not fit the norm may be situated as marginal members. This is nearly as troubling as the normalization of heterosexuality, which has contributed to lesbian, gay, and bisexual peo-

ple being situated on the margins of society in the first place. Even Coleman (1982), while proposing a linear developmental model with normalizing features, feared this outcome: "There is a danger in any model that oversimplifies the developmental tasks that must be completed to assure an integrated identity. Rigid rules of conformity are sometimes dictated by the gay community, and these can be harmful to the many men and women who do not comply" (p. 40). It is not only the gay community that enforces rigid rules; as Foucault (1978) pointed out, enforcing rigid social norms has become a defining characteristic of modernist societies. In suggesting developmental stage models, theorists run the risk of contributing to normalized visions of identity and thereby reinforcing marginality. D'Augelli (1995) argued this very point when he criticized traditional notions of identity: "Identity constructs serve a prescriptive function allowing the comparison of lives: Some reach self-actualization, others do not. Those who do not are, by definition, flawed in one way or another" (p. 2).

Researchers who explore student life and collegiate contexts need to take into account the limitations of developmental models and at times resist the inclination toward overgeneralizing. In regard to lesbian, gay, and bisexual students, researchers need to move away from highly structured linear accounts of identity development to more diverse, localized understandings. Efforts must be made to avoid grouping the identity challenges lesbian, gay, and bisexual people face under one generic rubric. Furthermore, greater insight is needed about the social contexts of sexual identity acquisition. This means that knowledge of sexual identity processes must be contextualized. This article is one attempt to contribute knowledge of gay and bisexual college males, but clearly more research is needed.

Conclusion

Part of what I suggest in this article relates to a fundamental paradigm shift in the way many social scientists examine human experience and revolves around what some have termed "postmodernism" or the "post-modern turn" (Mourad, 1997; Tierney & Rhoads, 1993). While traditional researchers tend to seek universal principles to explain human behavior, postmodernists seek more localized forms of knowledge as they search for various meanings humans give to their lives (Geertz, 1983). This article represents not so much a rejection of traditional methods as it does an argument for additional methods designed to uncover the diversity of human experience and the relevance of local knowledge.

As a complex and continually evolving process, sexual identity acquisition offers a practical challenge to college and university faculty and

staff who work with today's students, and it offers an intellectual challenge to higher education scholars concerned with student life. The challenge is to be as knowledgeable as possible of the connections that cut across the identity processes of lesbian, gay, and bisexual students, and yet recognize the actual and potential differences inherent in such a mutable process.

Obviously, there is much to be learned. Faculty need to be encouraged to conduct research in the area of lesbian, gay, and bisexual studies. For years, scholarship in this area has been treated in a manner akin to how society has dealt with lesbian, gay, and bisexual people in general; gay scholarship like gay individuals has been rendered invisible through powerful structures such as promotion and tenure and peer review (Tierney, 1993a). The time seems ripe to pursue these issues in greater depth and to pull lesbian, gay, and bisexual studies out of the closet in a manner similar to how Roman Washburn was pulled from his closet by a friend.

Notes

¹All names of students are pseudonyms.

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How to Survive in Postindustrial Environments

Adam Smith's Advice for Today's Colleges and Universities

In every profession, the exertion of the greater part of those who exercise it, is always in proportion to the necessity they are under of making that exertion.

Adam Smith

Introduction

Many, if not most, institutions of higher education have fallen on fiscal hard times. Because revenue-enhancing strategies have for the most part been exhausted, administrators in such institutions increasingly "restructure" or "reengineer" their institutions to balance budgets.¹ Unfortunately, reengineering and similar "quality practices" have failed to deliver on their promises in one out of every two cases in manufacturing and other service industries (Hammer & Champy, 1994, pp. 217–218). Keidel (1994) has suggested that this high failure rate is the result of a lack of theorizing. Specifically, he proposes to "rethink" organizational design while keeping in mind that organizational outcomes are a function of cognitive patterns of managers. Abrahamson and Park (1994), Cameron (1983), Cameron and Tschirhart (1992), Zammuto and O'Connor (1992), and Ostroff and Schmidt (1994) have provided empirical support for this proposition. With many colleges and universities embarking on "restructuring" and "reengineering" experiments, Keidel's proposition seems relevant.

For higher education, the analysis is complicated by the fact that most colleges and universities are nonprofit organizations. Hence, their optimization criteria are less clearly defined (Cohen, March, & Olsen, 1972;

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March & Simon, 1993; Oster, 1995; Young, 1983; Rothschild & White, 1991; Steinberg, 1993; Young & Steinberg, 1995). Complicating matters is the high degree of autonomy that faculty is often granted and its non-hierarchical organization (Massy & Zemsky, 1994). Organizational outcomes are thus also functions of cognitive patterns of faculty.

Drawing on his own quite diverse experiences, Adam Smith reflected extensively on educational institutions. In doing so, Smith also made the connection between organizational patterns and cognitive patterns. In addition, he linked the origin and evolution of cognitive patterns to teachers' and administrators' preferences and incentives. I propose that his disinterested advice from yesterday can be helpful in analyzing incentive problems that currently afflict higher education and in understanding emerging trends that seem to address them.

This article is organized as follows: First, I summarize Smith's analysis of the incentive problems that afflicted higher education at his time. I then discuss incentive problems that plague higher education today and emerging trends that signify attempts to deal with them. After a review of related literature I conclude with a discussion of the relevance and implications of Adam Smith's insights for our understanding of postindustrial environments.

Incentive Problems that Afflicted Higher Education in Smith's Day

Smith discusses education in Book V, Part III, Article II of *The Wealth of Nations* (Smith 1776). In that Book, Smith reviews the duties of the sovereign, which he identifies as defense, justice, infrastructure, and the provision of educational and ecclesiastical institutions. Throughout his discussion, a central concern of Smith is whether the necessary expenses can be repaid by those that benefit from the good or service to be provided. Smith argues that

the institutions for the education of the youth may . . . furnish a revenue sufficient for defraying their own expense. The fee or honorary which the scholar pays to the master naturally constitutes a revenue of this kind (p. 716).

Having postulated that she or he who benefits ought to pay,² Smith notes that most schools and colleges in Europe have significant endowments, which tend to translate into guaranteed salaries for teachers, and he asks,

Have those public endowments contributed in general to promote the end of their institution? Have they contributed to encourage the diligence, and to

improve the abilities of the teachers? Have they directed the course of education towards objects more useful, both to the individual and to the public, than those to which it would naturally have gone of its own accord? (p. 716).

In answering these three questions Smith identifies the main components of modern agency theory: (1) the problem of adjustable quality and effort, which, when combined with asymmetric information, generates what is generally known as the principal-agent problem;³ (2) the disadvantages of third-party enforcement; and (3) the advantages of reputational enforcement (Klein & Leffler, 1981).

The key to his analysis is the insight that education is an experience good, i.e., a service whose quality cannot be ascertained easily upon inspection (Nelson, 1970; Darby & Karni, 1973; Tirole, 1988). Education, like organic bananas, car repairs, and secretarial, child, or old age care services, is therefore subject to moral hazard and quality assessment problems.⁴

Smith's argument unfolds as follows: He first establishes what it takes for teachers to exert the effort that makes for a quality education. It is the "necessity they are under of making that exertion" (p. 717). Smith next links that necessity to the payment mode of teachers. Those whose income is based on fees or honoraria experience more necessity than those whose income draws — in the form of guaranteed salaries — on endowments. Those who can count on salaries, he argues, will have no incentive to worry about their reputations and their teaching, especially if their salaries are "altogether independent of their success and reputation in their particular professions" (p. 717). Smith knew what he was talking about. At Glasgow College he drew more than half of his salary from fees (Rae, 1895, pp. 48–49); he also observed the impact of less incentive-compatible payment modes during stays at Oxford and in France.

Smith next ponders the question of curricular innovation (pp. 720, 722–727), where he sees the same misalignment of incentives at work. His argument regarding curricular innovation is a straightforward extension of his argument regarding the quality of teaching. Once again, Smith ties the lack of curricular innovation to public endowments, which he thinks, erode teachers' incentives to exert effort. To wit:

The improvements which, in modern times, have been made in several branches of philosophy, have not the greater part of them, been made in universities; though some no doubt have. The greater part of universities have not even been very forward to adopt those improvements, after they were made; and several of those learned societies have chosen to remain, for a long time, the sanctuaries in which exploded systems and obsolete prejudices found shelter and protection, after they had been hunted out of every

corner of the world. In general, the richest and best endowed universities have been the slowest in adopting those improvements, and the most averse to permit any considerable change in the established plan of education. Those improvements were more easily introduced into some of the poorer universities, in which the teachers, depending upon their reputation for the greater part of their subsistence, were obliged to pay more attention to the current opinions of the world (p. 727).

At this point, someone might be tempted to argue that peer pressure and administrative supervision should be sufficient to keep teachers from shirking on their duties. Surely there must be ways for faculty to police itself; if not, persons extraneous to the faculty, say a bishop, governor, minister of state, or their agent(s), ought to be able to intervene and take care of professorial slackers.

Not so, says Smith, once more demonstrating his insights in the applicability of the two major competing enforcement mechanisms, third-party and reputational enforcement. He notes that a faculty member will allow other faculty members to neglect their duty, "provided he himself is allowed to neglect his own," and in regard to bishops, governors, ministers of state, or their agents he observes,

All that such superiors . . . can force him to do, is to attend upon his pupils a certain number of hours, that is, to give a certain number of lectures in the week or in the year. What those lectures shall be, must still depend upon the diligence of the teacher; and that diligence is likely to be proportioned to the motives which he has for exerting it. An extraneous jurisdiction of this kind, besides, is liable to be exercised both ignorantly and capriciously (p. 718).

In sum, Smith anticipates the reasoning that underlies today's reputational theories of quality, efficiency wages, firms, and other organizations (Klein & Leffler, 1981; Weiss, 1990; Holmstroem & Tirole, 1989; Tirole, 1994, 1996). He comes to the same conclusion and policy prescription: The provision of the experience good education is not easily enforceable by way of contracting or third parties. Good teaching and curricular innovation have to rely on agents' recognition and appreciation of the power of reputation. In fact, Smith goes beyond that. He stresses that third-party enforcement is likely to produce additional problems, such as that of administrators making decisions that they are not qualified to make. As Smith points out, the shift of decision-making power will lead to obsequiousness on the part of those potentially exposed to administrators' ignorance and capriciousness, which results in influence costs (Milgrom & Roberts, 1990) and distracts from both the ability and the diligence of teachers. Third-party enforcement is likely to attenuate existing problems and to create new ones.

Incentive Problems that Afflict Higher Education in Our Day

Many, if not most, colleges and universities have fallen on fiscal hard times. A key concern of the interested public is that the costs of higher education, which until approximately 1980 had remained roughly constant in real terms, have since gone up dramatically, significantly more so for private than for public institutions (Clotfelter, 1996; Honan, 1994). The standard rationalization for this is the Bowen-Baumol hypothesis, which states that labor-intensive service industries carry a systematic productivity handicap because they cannot substitute labor. Hence, the argument often goes, increases in sticker prices and costs in excess of the inflation rate ought to be expected (and tolerated.) The argument explains neither why until 1980 the costs of higher education were level, nor why private and public institutions report differential cost increases; it also contrasts with the experience of other service industries that have reported cost decreases (McKinsey, 1992).

Administrative and academic productivity have been identified as likely drivers of the cost increases.⁵ Because the administrative lattice has been explained elsewhere (Gumport & Pusser, 1995; Massy & Warner, 1991; Massy & Wilger, 1992; Williamson 1970), and because, in addition, it may be the consequence of the academic ratchet, I focus here on issues of faculty productivity. Massy and Zemsky (1994) trace the academic ratchet back to departments' having the central role in conferring membership and tenure to individual faculty members, to deciding what ought to be taught and how, and to insisting that "all members be treated not just fairly but nearly identically" (p. 3). The authors suggest how the resulting perception of ever expanding property rights leads in myriad ways to increases in discretionary time. Roughly, faculty discretionary time results from spending less time on teaching - either as a function of fewer courses, or as a function of reduced effort. Massy and Zemsky argue that rewards and penalties at colleges and universities are such that good teaching and curricular innovation will fall by the wayside, because investments in research and scholarship (for example in the form of consulting) pay personally and financially higher returns. In addition, investments in research and scholarship are alleged to provide more professional prestige and more mobility. The authors support their argument with first results from a "case study" of four liberal arts colleges and two universities. Their argument mirrors Smith's suggestion that faculty will collude if allowed to do so and if emoluments are not paid in proportion to the exertion that individual faculty members expend. Massy, Wilger, and Colbeck (1994) come to the convincing and

somewhat disturbing conclusion that the misalignment of incentives makes for an unproductive departmental environment.

Massy and Zemsky also note that "there has been an incipient de-structuring — or deconstructing — of the undergraduate curriculum over the last two decades" (p. 2), which has fueled questions of the "value added" at colleges and universities (Applebome, 1995; Mane-gold, 1994; SCANS, 1992). Massy and Zemsky trace the destructuring of the undergraduate curriculum to the misaligned incentives that faculty face. Their observation mirrors Smith's suggestion that the mode by which teachers are paid ultimately affects curricular content.

Ortmann and Squire (1996) employ rudimentary game theory and model colleges and universities as a cascade of principal-agent games. By explicitly defining the objective function of a college and enumerating the aligned and unaligned goals of four classes of players — alumni/students, overseers, administrators, tenured and untenured professors — the authors demonstrate that the common denominator underlying both administrative lattice and academic ratchet is a lack of monitoring technology and accountability. Their analysis suggests that to the extent that faculty members manage to shirk on such "sharable management duties" as advising and governance, the administrative lattice is partially driven by the academic ratchet. By modeling educational institutions as a cascade of principal-agent games, the authors explain organizational outcomes as a result of the cognitive patterns and incentives of the major constituencies of a college.

There is scant evidence that colleges and universities address the problems in the same dramatic manner that has been forced on firms in manufacturing and other service industries (McKinsey Global Institute, 1992, 1993). Higher education's continued fiscal crisis, reflecting a cost structure out of line with revenues, is a strong indicator. Equally indicative are recent results by Siegfried, Getz, and Anderson (1995). Based on a survey conducted at more than 200 institutions, these authors investigated the adoption of 30 specific innovations. They find that it takes higher education twice the time it takes industry to adopt innovations. They furthermore find that technological innovations are adopted faster than academic ones. Pondering the results of their survey, they conjecture that colleges and universities are insulated from many competitive pressures and that the lack of accountability and ready performance measures is responsible for higher education's inertia.

Emerging Trends in Response to Incentive Problems

In the meantime, a number of intriguing, only seemingly disjointed phenomena have emerged in higher education. These trends parallel trends in other service industries; keeping Smith's analysis in mind

helps to make sense of them. The phenomena are: The initial public offering (IPO) of the Apollo Group, Inc., the case of (overwhelmingly private) proprietary schools, the reorientation of many colleges and universities toward vocationalism, and the dramatic increase of instructors with limited-time and piece-rate contracts.

Apollo Group, Inc. This company is the first institution of higher education to go public (Smith Barney, 1994, 1996). It provides education programs through its subsidiaries, the University of Phoenix (UOP) and the Institute for Professional Development (IPD). IPD is a consulting division that helps other schools implement and manage education programs tested at UOP. UOP itself offers bachelor's and master's degree programs in business, management, computer information systems, education, and health care and targets working adults and their employers as its customers. This strategy is promising for the simple reason that continuing education has, in the light of the dramatic labor market changes of the past decade, become an indispensable requirement. (The U.S. Department of Education National Center for Education Statistics estimated that in 1992 about 45% of the students enrolled in higher education programs were adults over 24 years of age (Smith Barney, 1994, p. 19). This insight has reached the Pew Higher Education Roundtable (1995a), which acknowledged that "colleges and universities must . . . become more nearly interchangeable nodes on an expanding educational network" (p. 5A). Empirically, the Apollo Group's successful IPO in December 1994, subsequent stock splits, and its stock price trajectory are signs that private colleges and universities can be viable for-profits.

While UOP currently targets a specific market segment, it pursues a number of interesting strategies, all of which seem transferable to other market segments in higher education. The following three are of particular importance. First, its curricula draw on input from faculty, students, and student employers. Second, faculty are teacher-practitioners and are contracted on a course-by-course basis. Third, for some of its programs the company uses computerized educational delivery systems that make student participation less dependent on the constraints imposed by classroom instruction.

Proprietary schools. Drawing on two surveys dated 1986 and 1988, Apling (1993) has provided a survey of this segment of the education industry. Offering training in business, cosmetology, health, and technical occupations, the more than 6,000 proprietary schools provide significant portions of postsecondary occupational training; 3 out of every 5 proprietary schools also offer academic programs of sorts. It is noteworthy that "cosmetology schools, which make up 40 percent of all proprietary schools, enrolled only 14 percent of students attending proprietary schools in the fall of 1986. Business and marketing programs and tech-

nology programs, which together account for less than one-third of the schools, enrolled nearly two-thirds of all students in the fall of 1986" (p. 386). Overall, proprietary schools seem very responsive to labor market needs.

Students of those proprietary schools are more likely to be women, minority students, and poor as compared to their peers attending other postsecondary educational institutions, such as community colleges (Apling, 1993, p. 391). They receive sizable portions (about 30%) of federal student financial aid under Title IV of the Higher Education Act. (They receive about one-quarter of all Pell grants and one-third of all Stafford loans.) The costs of attending proprietary schools (tuition and fees plus other costs such as room and board) are fairly high and in 1986–87 amounted to \$8,000 (as compared to \$ 5,000 for community colleges). In the current context, it is noteworthy that among the reasons students choose proprietary schools are "the school's reputation, availability of desired courses, financial aid, and job placement rates." (Apling, 1993, p. 397) It appears that students at proprietary schools are rational consumers concerned with school quality as well as job prospects. They do vote with their feet, although increasingly their choice is constrained by reductions in funds (Burd, Healy, Lively, & Shea, 1996; McPherson and Shapiro, 1996).

Although proprietary schools aim at a specific market segment, they pursue two strategies that are of general interest in the current context. First, their curricula are informed by market demands. Second, faculty are contracted on a course-by-course basis.

Reorientation toward vocationalism. The orientation toward marketable skills is not restricted to institutions such as UOP or proprietary schools. Not surprisingly, one finds adoption of market-oriented curricula at business schools and specialty colleges like Babson. More important is that the orientation toward marketable skills has already changed the majority of liberal arts colleges in fundamental ways. Breneman (1994, appendix A) analyzes curricular changes over time by way of degree data from 1972 through 1988 at all Liberal Arts I and Liberal Arts II colleges. He concludes that liberal arts colleges are rapidly becoming professional schools — schools that offer increasingly professional degrees in areas such as business, education, nursing, engineering, computer science, agriculture, and health sciences. The changes have been truly radical: "According to a liberal definition that calls any school awarding less than 60 percent of its degrees in professional fields a liberal arts college, there are only about 200 of them left in the country" (p. 139).

Limited-time, piece-rate contracts. The practice of hiring teachers on limited-time, piece-rate contracts is widespread and can increasingly be found at colleges and universities. More than 40% of college faculty

members today are estimated to be on such contracts, up from 20% two decades ago (Mydans, 1995; Wilson, 1996).

One could argue that the emergence of the Apollo Group and the existence of proprietary schools are a function of the closeness of curricular content to market demands — an argument not easily applicable to Bennington College, a small private liberal arts college in Vermont. The Bennington experiment was necessitated by persistent budget deficits brought about by dramatically declining enrollments, which some of its participant observers linked to the kind of problems that could well have been the object of Smith's drastic description of the reality of higher education in his time (Edmundson, 1994). To address the problem, the college's new president closed departments, fired tenured teachers, dissolved the institution of tenure as such, and more generally forced Bennington into a process of radical redefinition, as a part of which it has hired teacher-practitioners on limited-time contracts. Since then two other high-profile cases, the University of Rhode Island and the University of Minnesota, have initiated similarly radical reinventions (Roush 1995; Chandler 1996; Magner, 1996; Wilson, 1996). With some officials estimating that more than one out of every four educational institutions currently in existence will be out of business within a decade (Healy et al., 1996, p. A15), dramatic changes like the ones at Bennington, URI, and UM are guaranteed to be only the beginning.

Summary. The following pervasive trends in higher education can thus be identified: First is an emphasis on (and reorientation of curricula toward) skills that are marketable. This reorientation of curricula is more and more influenced by demand-side considerations, and the curricula themselves are increasingly taught by teacher-practitioners. A second pervasive trend is the rising number of teachers on limited-time, piece-rate contracts. A third trend is the increasing use of computerized delivery programs (Blumenstyk, 1996; Noam, 1995). These developments address issues of a desirable quality of teaching and curricular innovation and, ultimately, questions of accountability, the misalignment of incentives, and influence costs by way of market pressures. An interesting and important feature of these developments is that they solve the ossification of institutions of higher education not through reform from within the institutions but through the discipline of the market. (Of course, to some extent the results force even ossified institutions to reconsider their internal organization.)

Discussion of Related Literature

Sherwin Rosen (1987), in a review and assessment of Smith's discussion of higher education, dismisses the idea that Smith's analysis of the impact of payment modes could enlighten today's discourse on how

higher education operates. He appeals to the Survival Principle, which asserts that "the salary system was 'fittest' because the fee system withered away" (p. 566). Rosen identifies several "scale factors" (p. 564) as having contributed to the demise of the fee system. As a result of the specialization of knowledge, students will have to learn from a number of teachers. By agglomerating teachers in one place, colleges and universities reduce transportation costs; furthermore, they capture the scale economies alleged to be inherent to using fixed resources such as libraries and classrooms and promote interaction among and between students and faculty. Finally, they develop brand names of their own, which reduces information costs, because it is easier to keep track of the reputation and qualities of educational institutions than of the teachers and students that populate them. To the extent that transportation, communication, and information scale factors are not easily priced, they work against the fee system and in favor of the salary system. So does, Rosen argues, the difficult relationship between teaching and research. To the extent that their characters and interaction are not easily identifiable, the salary system seems once again to offer an easy way out. "An education represents a complicated bundling . . . and is seldom closely tied to a specific teacher compared with the collectivity of a school's faculty, student body, and administration. The reputation of a school rests far more on this collectivity than on the specific identities of its individual members" (p. 567).

Intriguing as it is, (and though it makes sense of historic accounts of the origin and evolution of colleges and universities, and the salary system, for that matter), I propose here that modern information technologies, and the competitive market of ideas that they support, invalidate Rosen's arguments and give renewed explanatory power to Smith's ideas.

Understanding of parallel developments in other service industries is instructive. The emphasis on (and orientation of curricula toward) marketable skills has its analogue in other industries' orientation toward quality customer service. The increasing number of teachers on limited-time, piece-rate contracts can be compared to the widespread outsourcing of services — value-added partnerships of sorts. The increasing use of computerized delivery programs has its analogue in the extensive use of new information technologies, which are the technological foundation that made outsourcing possible. That these trends emerge now can be attributed to the postindustrial environment that higher education, like other service industries, finds itself in.

Postindustrial environments are characterized by scarcer resources, increasing competitiveness, and a more turbulent, less predictable envi-

ronment. In a series of articles with different coauthors, Thomas Malone (Malone & Smith, 1987; Brynjolfson, Malone, Gurbaxani, & Kambil, 1994) has suggested that postindustrial environments are the product of modern information technologies. By dramatically reducing the costs of coordination — between, as well as within firms — the new information technologies systematically affect the institutional choice between firm and market allocation. Specifically, Malone and Smith demonstrate that relative changes in coordination costs force the substitution of one organizational form for another in a predictable manner, from decentralized and centralized markets, via product and functional hierarchies all the way back to decentralized markets. Malone and Smith predict the outsourcing and flattening of hierarchies — the two key phenomena of organizational changes observed over the past few years — as consequences of reduced coordination costs. Brynjolfson, Malone, Gurbaxani, and Kambil verify empirically one of the key predictions to come from this earlier line of work: firms have grown smaller. “The implication of our findings is that the current downsizing of firms, the popularity of outsourcing, and the rise of value-adding partnerships is not simply a management fad, but rather may have a technological and theoretical basis” (Brynjolfson et al., 1994, p. 1642). Indeed, it is now widely accepted that the new information technologies drove outsourcing and flattening of hierarchies (Daft & Lewin, 1993).

In a recent article Eli Noam points out the implication of modern technologies for (higher) education and scholarly activities (Noam, 1995). The old direction of information flows implied scholars coming to the information that was centrally stored in libraries. Students, in turn, would come to those places where scholars could be found — colleges and universities built around information depositories. This model justifies the physical existence of colleges and universities as the result of (agglomeration) economies of scale.

The modern information technologies are about to destroy this model. Instead of scholars coming to information depositories, information is increasingly coming to scholars and their students. (See also, Blumenstyk, 1996; Bongiorno, 1995; Weiner, 1996.) This new direction of information flows makes scholars and their students increasingly independent of physical structures, such as the physical plant that many colleges and universities maintain. The new direction of information flows undermines the basis of colleges and universities — (agglomeration) economies of scale. It thus undermines the basic rationale that Rosen described.

With information increasingly at one’s fingertips, informational economies of scale become similarly less and less important.⁶ A com-

parison with developments in financial and health-care markets is instructive. Take mutual funds: consumers now do comparative shopping among literally thousands of such funds, relying on a plethora of rankings, all-star teams, and so on. Likewise, medical report cards and *U.S. News and World Report* rankings unbundle health-care organizations. Analogously, umbrella branding in higher education is in the process of being unbundled. Over the past decade graduate school rankings for most disciplines and specialties have been published yearly in *U.S. News and World Report*. Increasingly, such rankings are based on hard data (Tracy & Waldfogel, 1994). Likewise, rankings of undergraduate programs are well established in such publications as *U.S. News and World Report* and *Money Guide*). In fact, recent entries by *Time* and *Newsweek* have made the rankings game into a rather competitive one. The added competition is likely to increase the quality of the provided assessments.

The rankings are a sign of the times. Though they are full of dubious data and should be taken as a screening device only, their very existence and undoubtable impact on decision making at colleges and universities lays the foundation for widespread reputational enforcement.

The same economic rationale drives the developments in mutual funds and higher education ratings. First, necessary data are becoming more easily available. Second, higher education has become more expensive and risky, making it imperative for those interested in such an investment to ensure the likelihood of reasonable returns. Third, indications are that these ratings are profitable enterprises that will not go away — much as many in higher education, health-care, or financial markets hope they would.

Other service industries had to acknowledge the arrival of postindustrial environments long ago; in contrast, higher education in parts has been able to avoid addressing these developments. As the previous section's discussion of emerging trends suggests, such avoidance strategies may not work much longer. Acknowledging that higher education is bound to follow similar developments is important, because postindustrial environments tend to lead to Pavlovian reflexes by administrators. Cameron and Tschirhart (1992) show that these reflexes are systematic and have a negative effect on institutional effectiveness. Specifically, the authors find that conditions of postindustrial environments elicit "a constricted capacity to process information, a reduction in the search for new information, consideration of fewer alternatives, and an over-emphasis on familiar, self-conforming information. . . . [Others] . . . found that a mechanistic shift in control also can occur, resulting in more centralized, formalized, and rigid procedures. Loss of institutional adaptability and flexibility result . . ." (p. 100). Administrators become

self-protective and resist truly participative decision making, which is essential to accommodate the need for multiple sources of information and multiple perspectives.

What to Learn from Smith's Analysis and Policy Prescriptions

Adam Smith's study of higher education in his day was guided by the insight that education is an experience good not unlike organic bananas, car repairs, and secretarial, child care, or old age services. This is a key insight for three reasons. It deflates the notion that education is a unique good. It highlights the temptation for teachers whose remuneration is not incentive compatible to neglect teaching and curricular innovation. It highlights the temptation for administrators to employ third-party enforcement instead of reputational enforcement. These insights are as relevant today as they were more than two hundred years ago.

Specifically, Smith suggested that, due to the nature of higher education at his time, neither a desirable quality of teaching nor innovative curricula would be forthcoming if emoluments would be drawn from public endowments without concern for performance. Being rather skeptical of third party enforcement through administrators, Smith favored reputational enforcement through market forces. His underlying conceptualization of the academic was that of the intellectual entrepreneur — with books and publications possibly as loss leaders.

While Smith was concerned about the incentive problems created by endowments and in this respect continues to offer guidance to our understanding of a puzzling problem (Hansmann, 1990), his arguments apply to all institutional arrangements that reduce the necessity of exerting effort. Tenure is a case in point. Historically, it was meant to create conditions for academic freedom. As such, it essentially constituted a job guarantee. These days, tenure is often coupled with automatic pay increases that are not linked to research productivity, quality of teaching, curricular innovation, advising, or participation in governance, thus creating the free-rider problems that can be shown to drive the academic ratchet (Massy & Zemsky, 1994; Ortmann & Squire, 1996). It seems easy to infer from his analysis of the debilitating effects of endowments that Smith would not have been in favor of such coupling of job guarantees and pay increases based on seniority or similar incentive-incompatible schemes. More difficult to answer is the question of whether he would have been in favor of tenure itself. The possibility cannot be excluded that Smith, as a second-best solution, would favor tenure as a protection device against incompetence and capriciousness of administrators. That said, his work also suggests that his preference would be

for a solution that would sort out incompetent administrators and not give them the opportunity to act capriciously in the first place. It is important then to keep in mind that colleges and universities in Smith's days were very different from those of today, particularly when considering the pervasiveness of the administrative lattice in the here and now. Smith's analysis of administrators seems to apply with force to today's colleges and universities.

Reforms in higher education seem particularly prone to the impact of vested interests (Cameron & Tschirhart, 1992; Bergmann 1991). It is no coincidence that much of the current debate is being conducted, and many of the policy prescriptions are provided, by administrators and professional researchers (Pew, 1993a, 1993b, 1994, 1995a, 1995b). On the other hand, notwithstanding the fact that total quality management, customer orientation, and reengineering are the buzzwords *du jour* in much of higher education, faculty and students seem marginalized in the current discourse — a curious aspect in light of the key tenets of the total quality movement.

One of the more disconcerting aspects for the reader of this journal is likely to be the fact that Smith's reasoning seems to assume that market forces would automatically direct the course of education toward objects that are useful both to the individual and to the public. The question thus has to be asked whether higher education can live with curricular innovations driven by market forces. It seems worthwhile to note that the current reorientations of curricula do not necessarily conform to traditional notions of vocationalism. With environments becoming more and more uncertain, human capital assets need to become increasingly more flexible and portable (Nussbaum, 1991a, 1991b; SCANS, 1992). These requirements encourage the acquisition of a portfolio of foundational skills. The more turbulent or postindustrial the environment becomes, the less industry-specific the acquisition of skills ought to be. The set of necessary skills can thus be conceptualized as a portfolio of skills that is a more sophisticated version of the basic "3R" paradigm (reading, writing, arithmetic). There is little in the foundation skills listed in the SCANS report (basic skills like reading, writing, arithmetic, mathematics, listening, speaking; thinking skills like creative thinking, decision making, problem solving, mental visualization, knowing how to learn and reason; and personal qualities like responsibility, self-esteem, sociability, self-management, and integrity/honesty) that seems irreconcilable even with notions of a liberal arts undergraduate curriculum (SCANS, 1992, appendix B).

The current developments in higher education — the arrival of the Apollo Group, the increasing vocationalism of curricula, the increasing

practice of hiring teachers on limited, piece-rate contracts, not to mention the widespread experimentation with management fads have mostly been met with apprehension by the faculty. This apprehension parallels the apprehension of labor in manufacturing and other service industries where parallel developments have taken place. Not surprisingly, the developments have often been framed as threats rather than opportunities. Given the marginalization of faculty and students in much of the current discourse, there are good reasons for such perceptions.

However, I have argued that certain trends are pervasive and irreversible. It is hence important to understand the forces that drive them and the opportunities that they offer. Because the current discourse is as yet mostly untheorized and, in any case, muddled by the utterances of vested interests, it may be worthwhile to listen to a disinterested voice from the past for guidance in the process of rethinking higher education.

Notes

¹See Pew Higher Education Roundtable (1993a, 1993b, 1994, 1995). The Pew Higher Education Roundtable started as an informal gathering of selected chief officers of institutions of higher education committed to "restructuring." In February 1983 they extended an invitation to chief officers of all two-year and four-year institutions to join in a formative session of the so-called Pew Collaborative (Pew, 1993a). Pew (1993b) is based on discussions that took place at a meeting in November 1993, which brought together leaders of over 400 colleges and universities.

²Although Smith (1776) favors the application of the benefit principle as a basic rule, he stresses that "the laboring poor, that is the great body of the people" (p. 735) may not have the means to become literate and numerate. "For a very small expense the public can facilitate, and can even impose upon almost the whole body of the people, the necessity of acquiring those most essential parts of the education" (p. 737). Such state intervention, Smith argues, is desirable because of the detrimental consequences of the division of labor on the human mind and ultimately the social fabric (pp. 734-735).

³An agent (a seller of bananas, car repairs, secretarial, or day care services) can provide different levels of quality. For ease of exposition, assume that she can provide either high or low quality. Typically, the principal (the buyer of the good or service) will not be able to ascertain whether he bought high or low quality without inspecting the good. The implied asymmetric information can be overcome only by way of inspection. Unfortunately, inspection typically entails costs. Buyers thus face a "dilemma of trust" — not to inspect and thus gamble that the agent will provide what she promised, or to inspect and incur the corresponding cost. Agent (seller) and principal (buyer) are caught in a game of strategic interaction that has four possible outcomes — {high quality, not inspect}, {low quality, not inspect}, {high quality, inspect}, and {low quality, inspect}. For examples like the one given above, agent and principal are likely to have conflicting individual rankings over the outcomes. Whereas the principal might prefer the outcome {high quality, not inspect}, the agent might prefer {low quality, not inspect}. On the other hand, whereas the agent might prefer {low quality, not inspect}, the principal might prefer {low quality, inspect}. A similar problem is pervasive in labor markets where the agent would be the seller of her labor (say, secretarial or child care services) and the buyer would have the choice to either monitor those services (proof-read, drop by the childcare center frequently) or trust that the expected effort is provided. The literature on so-called

efficiency wages (Weiss 1990) collects the relevant insights, which, though they are couched in slightly different terminology, are identical to those regarding product markets.

⁴Klein and Leffler, whose path-breaking 1981 article on the role of markets in enforcing contractual arrangements has inspired much of the modern literature on moral hazard and quality assessment problems, give credit where due: in their footnote 5 they point out that Smith's discussion of what is nowadays called efficiency wages (Smith 1776, Book 1, chap. 10) lays out the essence of their argument.

⁵See, for example, Massy and Warner (1991), and Massy and Zernsky (1994), and more recently, Leslie and Rhoades (1995) and Gumpört and Pusser (1995).

⁶Empirically Getz et al. (1991) have made an impressive theoretical and empirical case for their claim that past analyses of economies of scale in higher education in general were flawed, because they averaged the seemingly increasing returns to scale of growing institutions and the decreasing returns to scale of institutions in decline. Their study suggests that the minimum efficient scale lies significantly lower than heretofore assumed and that, for all practical purposes, economies of scale in higher education do not exist.

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Reconceptualizing the Leadership Roles of Women in Higher Education

A Brief History on the Importance of Deans of Women

A New Perspective

In the early 1970s, Annette Weiner traveled to the Trobriand Islands near New Guinea in the South Pacific. The Trobriand Islands are well known to anthropologists, because "for those familiar with any social science, the Trobriand Islands need little introduction. Their renown is due to the voluminous and often brilliant writings of Bronislaw Malinowski, who lived in the Trobriands for two years between 1915 and 1918" (Weiner, 1976, p. xv)." Malinowski published extensively, using his experiences and observations among the Trobrianders to establish himself as one of the major figures in cultural anthropology and ethnography.

In 1976 Weiner published her own study of the Trobriand Islanders as a book titled *Women of Value, Men of Renown*. Weiner juxtaposed her observations from the 1970s against those of Malinowski from the 1920s. She demonstrated sharp distinctions between the world Malinowski saw and the same, relatively untouched and unchanged world she observed some fifty years later. What becomes clear from Weiner's depiction of Trobriand life and culture in *Women of Value, Men of Renown* (1976) is that the interpretation of events and actions of people is often prone to misinterpretation, even obfuscation. Even more obvious when viewed through Weiner's "revisions" of Malinowski's ethnographic study is the notion that perspective and point of view are critical factors in making such interpretations.

The ultimate point Weiner (1976) demonstrates is that the most fatal

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of several flaws in such interpretations is the presumption of gender superiority or dominance. Malinowski expected men in the Trobriand culture to be the primary source of power and exchange of items of value. As a result, that is exactly what he found. It colors all of his interpretations and writings. When he did write about the Trobriand women, which was infrequent, he did it through conversations and interpretations provided by the men in the villages, not from the women. As Weiner states in her final chapter, "We unquestioningly accept male statements about women as factual evidence for the way a society is structured. . . . From this view, since we compare women to men in the context of politics, we should not be surprised that we arrive at the almost universal notion that women's status is secondary to that of men" (Weiner, 1976, p. 228).

Weiner's own observations and reinterpretation resulted in the "discovery" that the women in the Trobriand culture are actually in control of and manipulate much of the wealth and thereby influence Trobriand society to a much larger degree than Malinowski ever acknowledged. Women not only control yams, the critical means of exchange in the Trobriand economy, but they are also responsible for the practical and spiritual processes of birth and death, major focal points of Trobriand culture. It turns out that Trobriand women are not just equal, a point Malinowski never considered, but in many respects they are the dominant gender, because they control much of the power and the economy in their culture.

As a male anthropologist, Malinowski presumed that the men would be in charge and in control. Even though he was trained to observe and note behavior with excruciating detail, Malinowski did not leave his biases and his vision of what he saw in European society behind when he journeyed to the Trobriand Islands. Instead he viewed the culture of the Islanders in much the same way he might have examined a neighborhood or a school near his own home, expecting that men would be in charge and have the power and that women would assume subservient roles and have primary dominion over children and household affairs.¹

To a large degree, these same misinterpretations and exclusions have affected the study of higher education in America. Women and their contributions have often been overlooked. For example, consider the following demographic information. In 1870 women accounted for 21% of the total undergraduate population in the United States; by 1890 the number of women had climbed to 35%; and by 1920, women represented 47% of all undergraduate students enrolled in American colleges and universities (Graham, 1978). These are impressive and significant changes in a "culture" that excluded women for years.

When the higher education of women began to gain ground in the late 1860s and the 1870s, the number of women enrolled was very limited. Some women, like Alice Freeman, thrived when given the opportunity for "higher learning." Alice Freeman enrolled at the University of Michigan in the 1870s with the support of President James Angell, an ardent coeducation proponent. Alice Freeman excelled in school and won the support of both men and women on the Michigan campus. As a senior, she was one of four invited to address the assembled audience, a true honor, especially for a woman (Bordin, 1993). Interestingly, Freeman's greatest success came a few years later when she became president of Wellesley, a single-sex, women's college. More typical of the period was the overt discrimination suffered by women students at the University of California, where men referred to the few women students as "pelicans," or at the University of Chicago, where the male faculty and students successfully lobbied President Harper to segregate classes by sex to exclude women.² The recent experiences of the first women students at the U.S. military academies in the 1970s or even at public state institutions such as the Citadel in the 1990s are reminiscent of the antagonisms and hazing experienced by women in the early days of coeducation.

But the admission of women to create coeducational institutions was just a beginning. What is more instructive and most illuminating are the successes of those women who survived their experiences as students, faculty, and administrators and prospered during this time. Those women who did attend colleges and universities were singular in their determination and in many respects, were true "pioneers" whose accomplishments and achievements deserve closer attention.

As a case in point, consider the deans of women. As the enrollment of women increased during the late nineteenth century, many college presidents began to appoint female faculty members to advise, assist, and counsel the new "minority" population on campus, female students. These women were typically given the title of "dean of women" to reflect their new dual roles. Over sixty years, from the late 1800s through World War II, the deans of women established a new profession in higher education. They laid the foundations of professional practice for higher education administration and student services, including graduate study, the development of professional associations, research on students, college environments, and student guidance and counseling. The deans of women developed a body of professional literature that included journals, research reports, and books. They worked hard to "professionalize" the position of dean and to legitimize their role on the predominantly male college campuses. As women they saw their role,

profession, and gender as inextricably tied together (Cott, 1987; Chafe, 1972); as a profession, they established a clear pattern of leadership, guiding unprecedented numbers of young women through the gauntlet of college life and fostering the development of guidance, counseling, and the academic and personal advisement of all students, male and female. The entire field of student services, from admission and orientation to student activities, to residential housing to career services, can be traced to the work of the deans of women.

However, the stories of the deans and other women in higher education have not been told or examined on a consistent and regular basis. Many of the significant accomplishments achieved by women have been lost or ignored in compilations of the modern histories of higher education. What remains is often limited or inaccurate. In the case of the deans of women, what remains is an unfortunate caricature of deans of women as "snooping battle axes" as James Rhatigan (1978) phrased it in his retrospective essay on deans of women and men. The image of the dean imprinted in many minds is one of a spinsterly, prudish woman whose energies were directed toward the bedevilment of fun-seeking, harmless (and male) youth, if any image remains at all. In large part, this inaccurate view mirrors Malinowski's misrepresentation of Trobriand society. The male voice which has dominated higher education, including the written and oral histories of American colleges and universities, has rarely given much credit to women, and certainly little to deans of women.

As Geraldine Clifford (1995) has noted, one of the most widely used texts in the study of higher education, Brubacher and Rudy's *Higher Education in Transition: A History of American Colleges and Universities, 1636-1976*, three editions of which had been published by 1976, "covers the rise of women's education, women's colleges, and coeducation on only six of its 514 pages" (p. 8). Clifford also notes that even institutional histories on coeducational institutions, such as Ferrier's work on the University of California (1930) never mentions or treats the admission of women in a significant way and minimizes their contributions. Frederick Rudolph's classic, *The American College and University: A History*, so popular in the first 1962 edition that it was reproduced in 1990, includes a chapter on "Women in Higher Education." But Rudolph does not attempt to discuss the extent of women's role in a significant way, he simply acknowledges their presence. Even a female-friendly historian, Barbara Solomon, whose comprehensive *In the Company of Educated Women* (1985) illuminated the role of women in higher education, dismissed a female pioneer in higher education, Lois Mathews, a historian and protégé of Frederick Jackson Turner, when she became a

dean of women at Wisconsin in 1915. According to Solomon, "Although her book, *The Expansion of New England* (1909), became a classic in the history of the American West, she *ended up* (emphasis added) as dean of women at the University of Wisconsin and did not continue as a historian" (Solomon, 1985, p. 137). Not only did Mathews "end up" at Wisconsin, she wrote a landmark book, *The Dean of Women* (1915), about her experiences, which is still relevant today. With Marian Talbot, Mathews later coauthored, *The History of the A.A.U.W* in 1931, despite her retirement as dean after she married and her name changed to Rosenberg.³

Deans of women, like other women of the period, have not received true or honest credit for their accomplishments. Despite their many achievements, the deans of women have generally been discounted, discredited, or ignored. In reality, the deans were consummate professionals who anchored much of their work to the academic principles of rigorous research and scholarly dissemination of their findings. Many of the significant and well-established practices of higher education administration and student services that exist today were first put in place through the work of the deans of women. Upon closer examination, a much different picture of the deans emerges. Just as Annette Weiner (1976) provided a new interpretation of women and their importance in the Trobriand Islands, a much more realistic and honest picture of deans of women, and of women in higher education in general, deserves to be told.

The Early Deans of Women

By most accounts, the first significant appointment of a woman to be a dean of women was Alice Freeman Palmer. A graduate of one of the earliest coeducational institutions, the University of Michigan, Palmer became a very popular, young president at Wellesley College. However, she resigned her presidency when she married Harvard philosopher, George Herbert Palmer in 1887 (Solomon, 1980). Eager to stay active in women's education, she agreed to be dean of women and professor of history at the University of Chicago in 1892 after incessant lobbying by Chicago president, William Rainey Harper. But Alice Freeman Palmer was reluctant to leave Boston, in large part because her new husband refused to accompany her. To sweeten the deal, Harper offered the caveat that she need only serve on a part-time basis, allowing her to spend several months in Chicago and the rest in Boston (Palmer, 1909). To share the workload, Alice Palmer persuaded Harper to hire her good friend and protégé, Marion Talbot as dean of women for the University College

and assistant professor of domestic sciences. When Palmer resigned three years later, Talbot became dean (Talbot, 1925).

The appointment of other deans of women followed quickly, paralleling the increases in the enrollment of women in colleges and universities across the country. In 1903 Marion Talbot of Chicago called for a meeting of deans of women.⁴ In response, seventeen deans, representing the Universities of Illinois, Wisconsin, Colorado, Kansas, Iowa, Ohio State, Michigan, and Indiana University, as well as Northwestern, Ripon, Carleton, Barnard, Oberlin, Beloit, and Illinois College convened in Chicago (Report of the History Committee of the National Association of Deans of Women, 1927). Their agenda at the meeting included discussion on the housing of women students, training in etiquette and social skills, women's self-government, leadership opportunities for women students, and women's intercollegiate athletics.

Soon organizations representing deans of women in state colleges, private colleges, and teachers colleges were formed. In 1910, newly victorious from a battle over gender segregation at the University of Chicago, Marion Talbot published her first book titled, *The Education of Women*.⁵ In 1915 Lois K. Mathews, dean of women and associate professor of history at the University of Wisconsin published the first book on deans, *The Dean of Women*.

Many deans of women expressed interest in gaining more specific skills and training for their new positions. In response, a graduate program was established at Teachers College of Columbia University specifically to train deans of women in 1916. Less than a year later, in 1917, a national organization, the National Association of Deans of Women (NADW), was established as a branch of the National Education Association (Report of the History Committee of the National Association of Deans of Women, 1927).

The deans of women were diligent in building their profession on the bedrock of academic discipline, research, and publication. Many of the deans appointed in the late 1800s and early decades of the 1900s already held advanced degrees in their own fields. Most held faculty rank and continued to teach despite the added responsibility of being a dean. As Lois Mathews noted in her book, *The Dean of Women* (1915), a dean "must win her spurs in the classroom. . . . There is no more effective place for inculcating respect for women's powers and equipment than on the teaching side of a desk in the college classroom" (pp. 32-33).

The deans of women were early champions of the new scientific methods of guidance for students. They often challenged each other and their campuses to "do the right thing" by women. During the 1920s, the graduate programs at Teachers College, Columbia, generated new re-

search on deans of women as well as studies on women in higher education. In 1928 Jane Jones, a graduate student at Teachers College published her research study titled *A Personnel Study of Women Deans in Colleges and Universities*. Jones heard from 263 women who held positions as deans. In her sample, 91%, or 238, had earned at least a bachelor's degree, 57%, or 151, had also earned a master's degree and 15%, or 40, had earned the doctorate. In response to the question "do you hold academic rank?" 197, or 74.9%, responded that they did, while only 66, or 25.1%, did not. Of those deans who held faculty positions, the breakdown of rank was as follows: "Lecturer 1—0.9%; Instructor 23—8.8%; Assistant Professor 34—12.9%; Associate Professor 34—12.9%; and Professor 105—39.9%" (pp. 12–14).

A large number of the deans, almost 40%, held the rank of professor. In addition, a majority of the deans who responded to Jones's survey taught in traditional arts and sciences areas, not in more traditional female areas, such as nursing or education. The academic disciplines represented were English (57), history (21), hygiene (17), French (16), education (15), and home economics (10) (of a total of thirty-six (36) academic areas reported).

As the profession expanded, the commitment to research continued. Ruth Strang, professor of education at Teachers College, headed the Research Committee of the National Association of Deans of Women through the 1930s. Diligent in her efforts, Strang and her colleagues at Teachers College, Sarah Sturtevant and later Esther Lloyd-Jones, oversaw many graduate research projects, and many were published. In the preface to the report of the NADW Research Committee in 1934, as published in the yearbook of the NADW, Strang (1934) wrote,

The position of dean of women has both artistic and scientific aspects. The artistic side is represented in the inspirational and philosophical articles; the scientific aspect in the description survey and experimental study of plans and procedures of work with individuals. It has been the self-imposed task of the Research Committee to summarize the investigations relating to the work of dean of women, and to make easily available annually the more or less scientific body of professional subject-matter published during the year. (Report of the Research Committee of the NADW, 1934, p. 56).

Strang encouraged her peers to continue to do research and to write, noting that

only 140 of the 461 articles analyzed [by her Research Committee] involved some systematic investigation. Professors and directors of guidance emphasize the need for measures of the effects of guidance services and opportunities. Well-planned programs of guidance should be set up, groups of students followed through these programs, complete records kept at each step and the

results carefully measured (Report of the Research Committee of the NADW, 1934, p. 129).

Under Ruth Strang's leadership, the Research Committee of the NADW had identified some 115 articles that might be of use to the deans in 1934. Through Strang's influence, comparable reports and bibliographies were prepared by the Research Committees and published in the *Yearbooks* of the NADW in 1935, 1936, and 1937.

In the 1920s and '30s, more books joined Talbot's *The Education of Women* (1910) and Mathews' *The Dean of Women* (1915). Anna E. Pierce, dean of women at the New York State College for Teachers produced *Deans and Advisers of Women and Girls* in 1929. Jane Jones' research (1928) was published in the Teachers College series, "Contributions to Education" in 1928. Another graduate study, *The Effective Dean of Women: A Study of the Personal and Professional Characteristics of a Selected Group of Deans of Women*, appeared in 1932, written by another dean, Eunice Mae Acheson. Sarah Sturtevant and Ruth Strang contributed their own research, *A Personnel Study of Deans of Women in Teachers Colleges and Normal Schools* in 1928, followed by *A Personnel Study of Deans of Girls in High School* in 1929. A much larger study, *A Personnel Study of Deans of Women in Colleges, Universities, and Normal Schools* updated the earlier studies with its publication in 1940.

By the mid-1930s, forty years after the first deans of women had been appointed and a mere seventeen years after the national association had been formed, deans of women had firmly established themselves in higher education administration. Far from "spinsterly battle axes," the first deans were well-respected academic women who had committed themselves to their disciplines. While they were determined to provide counsel and support to young women, they also focused on the prerequisites of scholarship as the road to respect in academe. Accordingly, the early deans wrote books, conducted research, published articles, and established professional associations. In turn, the associations developed journals and held annual conferences for the further dissemination of knowledge and advancement of the profession.

The deans of women encouraged graduate study and graduate degrees not only for the training of new young deans but also because it expanded the opportunities for research. As a new profession, the deans did not stand still. The faculty teaching in the graduate programs, as evidenced by Ruth Strang, represented some of the strongest researchers and practitioners in the new fields of guidance and counseling and the emerging "personnel" movement. When Esther Lloyd-Jones joined Strang and Sarah Sturtevant on the faculty at Teachers College, she

brought with her firsthand knowledge and experience of the new "personnel psychology," first developed at Northwestern University in Evanston by Walter Dill Scott.

Deans of Men

Two of the first deans of women were appointed at the University of Chicago in 1892; seventeen years later, the first dean of men was appointed.⁶ The first "official" dean of men is probably Thomas Arkle Clark, a professor of rhetoric at the University of Illinois. Clark was officially named dean of men in 1909. His appointment was soon followed by others at Purdue, Iowa, and Wisconsin, to name only a few. Whereas the admission of women had created changes on campus that demanded a more immediate administrative response, such as naming deans of women, the supervision of male students had been less of a concern.

Given the rapid appointment of deans of men in the Midwest, it was natural that the first recorded meeting of deans of men took place at a Big Ten institution. The dean of men's first meeting occurred some sixteen years after the first meeting of deans of women in Chicago and two years after the creation of a national organization for deans of women. Scott Goodnight, dean of men at the University of Wisconsin, arranged the meeting in Madison in 1919 "for a discussion of our problems" (Goodnight, 1934, p. 28). Goodnight, with encouragement from Robert Rienow of Iowa, called the meeting because of his concern for student disciplinary matters between the schools. In his own words,

So without authorization from anybody, I wired Minnesota, Iowa, Illinois, Indiana and Michigan to come on over. The idea of founding a permanent organization or creating a professional association was the farthest thing from my mind when I invited the boys to come in for a weekend so that we might discuss our common tribulations more intimately. It was after the first meeting had proved so pleasant and stimulating that the proposal was made to repeat it (Goodnight, p. 30).

The session proved a success, and other annual meetings were held over the next few years. Official minutes were published following the third meeting in 1921. A formal name for the gathering, the National Association of Deans of Men (NADM), was adopted in the same year.

The men's meetings were social and clublike in contrast to the professionalism of the national conferences of the deans of women. The deans of men enjoyed the opportunity to converse, to enjoy local hospitalities and activities, and to regale each other with tales from their campuses. The tone of the early meetings of deans of men is captured in the comments of Stanley Coulter, dean of men at Purdue University.

What is a Dean of Men? I have tried to define him. When the Board of Trustees elected me Dean of Men, I wrote to them very respectfully and asked them to give me the duties of the Dean of Men. They wrote back that they did not know what they were but when I found out to let them know. I worked all the rest of the year trying to find out. I discovered that every unpleasant task that the president or the faculty did not want to do was my task. I was convinced that the Dean of Men's office was intended as the dumping ground of all unpleasant things. (Coulter, 1928, p. 37)

Over time, issues of professionalism, graduate study, and the role of the dean of men were topics of discussion, but these issues were addressed in a more affable, informal manner and with less emphasis on scholarship and research than the deans of women demonstrated in their sessions. The deans of men searched for a persona that they liked. They wanted to be appreciated for the services they provided to their respective institutions, including counseling and advising of young men, and feared being commonly perceived as only "disciplinarians," whose primary function was to punish young men who ran afoul of college or university rules and regulations.⁷ However, they had a difficult time not being regarded as disciplinarians first, and student advocates second. They practiced a benevolent, pipe-smoking, older brother type of *in loco parentis*. As such, the deans of men often cast the image of their profession in a reactionary mode, responding after the fact, in contrast to the active involvement of the deans of women.

Nowhere was this more apparent than in the oblique debate about professional training and graduate study. Despite the concern over their image, the deans of men for years actively resisted the idea of graduate study for anyone who wished to be a dean of men. Graduate study was superfluous. At the 1931 deans' conference, Joseph Bursley (1931), dean at the University of Michigan claimed, "I am afraid that I am not in sympathy with the idea of any course of training for the position of Dean of Men. . . . The best and most successful Deans of Men are born and not made" (p. 103). However, Bursley did concede,

There is one place where I believe that preparedness is absolutely essential to the success of a dean of men — that is in the selection of a wife. The very best preparation he [the dean] can have for his work is to marry the right woman. If she is the right kind, a dean's wife does just as much to earn his salary as he does, and if she is not, he might as well quit before he starts (p. 104).

Time did not change this attitude. Five years later, when Thomas Arkle Clark's protégé and eventual successor at the University of Illinois, Fred Turner (1936), appeared before the annual conference of the National Association of Deans of Women in 1936, he declared,

As chairman of a special committee [of the National Association of Deans of Men] to study and report on . . . the preparation of dean of men . . . [I can report that] the general opinion of those who have served long and successfully, and those who have observed successful deans of men, is that there is no satisfactory training [to be a dean], at least from the academic standpoint, for the simple reason that the best deans are born that way and not trained that way (p. 104).

Instead of graduate study, the deans of men suggested that practical training for aspiring deans might be helpful. In response to a survey Turner sent to 175 deans of men, the following activities were suggested by the 128 deans who responded: "apprenticeship to a Dean of Men" (68), "work with activities" (43), "administrative duties" (30), "counseling and interviewing" (27), "dormitory proctor" (18) and "business experience" (16). Other suggestions ranged from "Y.M.C.A. work" to "grade tests" to "speaking in public" (Turner, NADW, 1936, pp. 105-108).

The "Personnel" Movement

One of the few deans of men who departed from this general attitude was F. F. Bradshaw, dean of men at the University of North Carolina. As early as 1931, he pressed his fellow deans to consider

that the deanship stands to some extent at a fork in the road; . . . whether we are to be solely campus disciplinarians or whether we are to be administrative coordinators of the institution's work from the point of view of the whole individual student and the point of view of the group life of students (Bradshaw, NADM, 1931, p. 108).

Bradshaw became active in the new personnel movement, which had been initiated by the work of Walter Dill Scott at Northwestern University. Scott spawned others who pursued this area of study, including L. B. Hopkins, who became president of Wabash College in Indiana, and Esther Lloyd-Jones, who moved from Northwestern to a faculty position at Teachers College with Strang and Sturtevant. Scott developed his concept of "personnel psychology" while he was a young psychology professor at Northwestern. Simply put, through a battery of tests, extensive interviews, and meticulous record-keeping, each participant was to be chronicled and categorized according to family background, personal interests, aptitude, and vocational and career aspirations. In the college setting, records on individual students allowed the trained observer to assess the student's developmental progress toward a college degree but also a successful occupation and, ideally, a fulfilling life. Rather than leave vocation, personal satisfaction, and social efficiency to whimsy and

chance, the application of proper personnel and guidance techniques enabled the personnel directors to direct and support student's energies toward constructive and useful ends.

Gradually, the concept spread. L. B. Hopkins wrote up his own version of Scott's personnel philosophy for higher education, *Personnel Procedure in Education*, published in 1926 by the American Council on Education (ACE).⁸ When Esther Lloyd-Jones moved to the Teachers College from Northwestern, she insured the proliferation of the "personnel" movement through her work with graduate students and deans of women. Her book, *Student Personnel Work at Northwestern University* was published in 1928.

The "student personnel" movement began to take hold in the 1930s. The concept and practice of guiding students through the application of psychology and vocational guidance was embraced by the deans of women in the early 1930s. Not only were the graduate faculty at Teachers College and other institutions promoting the very latest in psychological sciences for work with college students, the deans of women, through their national association, spread the word to deans of women and other faculty members across the country.

As early as 1931, a report on land-grant colleges by the U.S. Office of Education noted,

The term "personnel service" has been carried over into the colleges from industry, where it came into prominence just after the World War [WWI]. . . . Industry uses personnel work in selecting, teaching, lessening turnover, conserving health, and providing recreations for its workers. . . . When colleges took over this type of work . . . the fundamental aim . . . [was] service to the student as an individual. [However] the colleges have for years been obtaining and filing away vast numbers of records, a source for limitless research, that, rightly used, might throw much light on many of their unsolved problems (U.S. Office of Education, 1931, pp. 420-424).

By 1937 ACE published a monograph reporting the work of a subcommittee on Student Welfare which enthusiastically promoted the concept of "student personnel." The monograph was addressed to a primary audience of college and university presidents and to faculty. It extolled the virtues of guiding students through courses, vocations, and even the extracurriculum under the tutelage of student personnel procedures. The seventeen-member committee included two women active in many of the activities of deans of women, Esther Lloyd-Jones, and Thrysa Amos, later president of the NADW (American Council on Education, 1937).

Over time the student personnel concept won many supporters. The deans of women saw the new philosophy as sound theory put into practice and of real benefit to women students. By placing an emphasis on

social efficiency and tying vocation to skills and ability, not just physical attributes, the personnel concept was much more friendly to women than other existing methods of selection and training. What the deans could not know was that the personnel movement carried with it the seeds of destruction for deans of women. At Northwestern, Walter Scott had recommended that personnel offices and workers be coordinated under a single director of personnel for efficiency. In his mind, one of the primary benefits of developing a personnel approach in either a corporate or collegiate setting was the coordination of all personnel matters. A single personnel director could and should administer the entire operation, coordinating the efforts of as many subordinates as necessary to collect the necessary information. Although this logical application of administrative hierarchy made sense, it did not bode well for the deans of women. Whether in the army, a factory, or a college, the administrative head of any large operation was almost always going to be a man.

The "Disappearing Dean of Men"

Whereas Dean Bradshaw of North Carolina became a proponent of the "student personnel" movement in the early 1930s, most of his peers did not.⁹ The deans of men did not alter their attitudes noticeably until after an address by W. H. Cowley in 1937 at their national conference with the auspicious title, "The Disappearing Dean of Men."

Cowley, director of educational research at Ohio State and a member of the American Council on Education committee, which produced the monograph on the Student Personnel Point of View" (ACE, 1937), spelled out the future for the assembled deans of men in a simple and straightforward thesis — as the need for student personnel services expanded, the office of dean of men would cease to exist. Although "deans for student relations" and "instructional" or academic deans had "grown out of the same tree" under Charles Eliot's administration at Harvard in the late 1800s, both "branches" had changed significantly over time.¹⁰ Cowley saw the dispersion of student personnel functions among the deans of men and women as an obstacle to effective work with students.

As an example, Cowley (1937) described the admissions director who collected valuable information from the college's application form. This application form is "replete with information of high value to the members of the personnel staff other than the admissions officer" (p. 94). But the information remained in a file in the admissions office, forcing others to collect it all over again in a huge waste of time to staff and students. Instead Cowley claimed, "All student personnel services should be made to work together in unison, they should all move forward in

step, in brief, they should all be coordinated" (p. 94). Ergo, a coordinated approach meant no separate dean of men.

There were "three roads" to a coordinated program in student personnel available to institutions, Cowley (1937) declared. The first allowed the existing dean of men to become the personnel coordinator; the second "road" made the dean subordinate to a new coordinator of personnel services; the third did away with the positions of both dean of men and women entirely, as had already occurred at Earlham, William and Mary, Iowa State, and Northwestern. Though some might desire a "fourth road," Cowley conceded, where things remained as they were, change was inevitable. The turn toward student personnel services in higher education, Cowley told the deans, was irreversible and universal. Though "sitting deans" might be named coordinator or director of personnel in the revamped organization, much would depend on the incumbent. Each dean would have to be evaluated on his own merits. A successful transition would depend on the dean of men's "training, his temperament, his intellectual range, his ability as an executive, and . . . his spirit" (p. 99).

Of the many questions Cowley fielded at the end of his presentation, the most provocative was — could a dean of women be promoted to these new positions as coordinator or dean for student personnel? "It seems to me there isn't any reason deans of women shouldn't go up if they are equal to it. I think we can say that the deans of women are in exactly the same position as deans of men" (p. 99), Cowley replied.

But in fact they were not in the same position. Most of the deans of women had been nurtured in a profession that valued graduate study, emphasized research, and promoted change, including the new "personnel movement" Cowley (1937) described. Professionally, the deans of women were much better suited to the innovations and developments of the "student personnel point of view" in contrast to many of the deans of men, who had "pooh, poohed" the notion of training or professional development. Good deans were "born, not made" seemed a fitting eulogy for the "disappearing" deans of men.

But little changed for the immediate future. In 1937 Cowley could trumpet the siren song for the deans of men, but in reality few lost their positions. Instead, World War II became the predominant story across the nation within a few years, and innovations on college campuses were put on hold. Those campuses that remained open maintained the status quo.

It was not until the postwar years of the late 1940s and 1950s, some ten to fifteen years later that the climate on campuses truly changed. In the face of returning veterans and surging enrollments, the "personnel movement" came into the picture again. As campuses adopted the "student personnel" philosophy envisioned by the American Council on Ed-

ucation in 1937, it was more out of self-defense as an efficient way to manage the enormous surge of new students. Even on coeducational campuses, American higher education became a "man's world" once again. As colleges and universities struggled to find housing, hire instructors, and accommodate veterans eager to cash in on the GI Bill, women and women's issues were pushed to the side. In short order, it was the deans of women, not the deans of men, who began to disappear.

The Disappearing Dean of Women

As a figurehead, the dean of women was threatened both in numbers and as a symbol. Although women's representation on campuses had climbed steadily from 1870 through the 1920s, women's inclusion on campus had never been easy. The Depression of the 1930s and the national focus on the war effort in the 1940s had directed social energies away from education. When the country returned to domestic issues following World War II, the press for "normalcy" and the rush to reward men for their "war effort" ignored women and their many contributions. In many cases it galvanized attitudes that can best be described as "anti-women," as manifested by the slow but steady erosion of women's presence on college campuses (Chafe, 1972). Women were excluded from colleges in much the same way that Rosie the Riveter was pushed out of the factory. In tracing enrollment statistics for the period 1870 to 1950, Barbara Solomon (1985) and Patricia Graham (1978) describe a slow but steady decline in the enrollment of women from 1930 through the 1950s. Making up almost half (47%) of all undergraduates in 1920, women by the mid-1950s accounted for only 21% of undergraduates (Graham, 1978).

Many explanations can be offered for this precipitous decline, but the simplest are also the most accurate. Despite their significant presence by the mid-1920s, women had never been welcome on college campuses. Although a few pioneering college presidents demanded coeducation and insisted on the right of women to a higher education, many male faculty as well as male students resented women. An uneasy truce was declared in large part because of the economic good sense of increasing enrollment by accepting female students and at the same time avoiding the fiscal folly of supporting two single sex institutions when one would do.

The Serviceman's Readjustment Act, better known as the GI Bill, a source of economic deliverance that kept the flood of returning male veterans from pushing the fragile economy into another depression, also served as a vehicle by which the college campuses were returned to their "rightful" owners, men. Women would be tolerated — but only toler-

ated. The common mythology during the 1950s was that women who enrolled in college were only there for their "M.R.S." degree, not for serious study. College was a man's world once again.

As the primary symbol of women's involvement on campus, the deans of women were no longer a positive force for change, but now they became pariahs. The caricature of the "spinsterly, snooping battle ax" (Rhatigan, 1978) gained credence in the 1950s, for it allowed the final denigration of proud, respected, and pioneering professionals — the deans of women. Instead of the recognition and respect that the deans of women deserved for their role in the establishment of graduate study, research, professional associations, and a significant body of literature, they saw their roles and offices erode in the face of the male tidal wave.

W. H. Cowley's predictions from 1937 were finally realized in the postwar America of the late 1940s and 1950s. As he had suggested, many of the deans of men were realigned into such positions as dean for student personnel, dean of students, and vice-president for student personnel services. In fact, in 1951 the National Association of Deans of Men changed their name to the National Association of Student Personnel Administrators.

However, Cowley was wrong about the opportunities for deans of women. They were not in "exactly the same position as deans of men." (1937, p. 99). Despite their extensive preparation, similar experiences and academic worthiness, the deans who disappeared were not the deans of men, but the deans of women. Deans of women were given lesser positions, allowed to retire quietly, or just dismissed. Many of the ideas, theories, concepts, research, and goals of the deans of women went forward, but the deans of women themselves did not. While men assumed the roles of leadership, they adopted many of the student-oriented issues, research, and policies and in most cases simply advanced the ideologies the deans of women had begun as early as the 1890s. Ironically, even today, graduate programs in higher education administration and student affairs continue to attract more women than men; however, following the same patterns established in the post-World War II era of the 1940s and 1950s, most of the top administrative positions still go to men.

Summary and Conclusion

The memory of the positive influence of the deans of women has been erased. The vibrant history and pioneering work of deans and graduate faculty such as Alice Freeman Palmer, Marion Talbot, Lois Kimball Mathews, Jane Jones, Sarah Sturtevant, Ruth Strang, and others have been forgotten or ignored. In the modern histories of student affairs and

higher education, life begins in 1937 with the development and publication of the ACE monograph, *The Student Personnel Point of View* (ACE, 1937). Little or no mention of the leadership and dedication of the early deans or their successors in the 1920s, 1930s, and 1940s has been retained; little or no mention of the research and graduate study first created by women is included; and scant reference is made to the diligence of women faculty and women deans.

In the tradition of Malinowski's misrepresentation of the Trobriand women as cited by Weiner (1976), the history and culture of higher education has been interpreted and written in such a way that it ignores many of the contributions of women. It is presumed that the deans of women are not important because they are no longer a part of the modern college and university. This interpretation is wrong; the deans of women were very important, especially to other women. Without the appointment of deans of women in the late 1800s, early 1900s, and through the 1940s, many female students could not have survived the animosities of male-centered higher education. In many respects, coeducation was successful because of the work of the deans of women. Through their pioneering work with female students in groups and individually, and their determination to formally represent women on campus to trustees, administrators, and male faculty, the deans of women ensured the place and role of women in twentieth-century higher education.

Deans of women were appointed to "take care of the girls," but, in fact, they contributed greatly to the success of modern higher education in many ways for both male and female students. As early as 1915, Lois Mathews wrote in *The Dean of Women*,

The danger is that coeducational institutions will continue to be in the future as the vast majority have been in the past — institutions for men, with requirements set at a man's pace and to meet his needs, where women are admitted, rather than institutions which provide with equal readiness, ingenuity, and enthusiasm courses for both sexes (p. 14)

Much of the initial research on students, student cultures, and the intrinsic and extrinsic value of higher education was completed by women. Many of those women were deans of women themselves or women engaged in the education of women. In truth, the development of student-centered research was generated, conducted, and supported by women, some as early as the 1880s. Deans of women owed much of their inspiration to the Association of Collegiate Alumnae (ACA), an organization devoted to the higher education of women. First organized in the 1880s, many leaders in women's education were also members of ACA, including Alice Freeman, Marian Talbot, and many early deans

and female faculty. ACA saw as one of its most important roles the sponsorship and dissemination of research that supported the higher education of women and countered the anti-woman arguments, such as Edward Clarke's, whose *Sex in Education* (1873) contended that women were physiologically incapable of higher learning.

The enrollment of women in American higher education and the retention of female students played a significant role in the expansion and stability of higher education from the 1870s through World War II. Their presence on college campuses expanded course offerings, major fields of study, and the role of students in institutional governance and culture. There is no question that higher education would be far different without the active and necessary involvement of women as students, faculty, administrators, and leaders. But the inclusion and importance of women in higher education are often overlooked and undervalued.

As Annette Weiner gently pointed out, Malinowski suffered from an ethnographic myopia toward women in the Trobriand Islands. "We unquestioningly accept male statements about women as factual evidence for the way a society is structured . . .," she writes, "From this view, since we compare women to men in the context of politics, we should not be surprised that we arrive at the almost universal notion that women's status is secondary to that of men" (1976, p. 228). In much the same way, the history of American higher education has experienced a similar form of shortsightedness toward women in higher education as students, faculty, and deans.

Though a number of recent works — Lynn Gordon's *Gender and Higher Education in the Progressive Era* (1990) and Geraldine Clifford's *Lonely Voyagers* (1989) are two examples — have begun to correct this myopic view of higher education, much remains to be done. The demographic trends — women are now equal to and in many cases have surpassed men in undergraduate enrollments, and they are catching up in many graduate and professional areas — indicate that women have been very successful when granted access to higher education (National Center for Education Statistics, 1995). Yet higher education continues to assume that men were and are preeminent, just as Malinowski did. This is a limited view. By reexamining the experiences of women and acknowledging the importance of their contributions we gain new appreciation, new understanding, and greater empathy for many constituent groups. Hopefully, more accurate histories will, in the future, serve as corrective lenses through which the true value and worth of deans of women and of the many other roles women have played in higher education can be seen more clearly.

Notes

¹Weiner never directly says that Malinowski was wrong but she implies that significant differences exist between her view and his earlier interpretations.

²The term "pelican" was derogatory because it described female students as having long, skinny legs, noses like long beaks, and spectacles perched at the end of their noses. See Lynn Gordon (1990) as well as Geraldine Clifford (1995) for more on this subject.

³Marriage for women, it should be recalled, often precluded a career, no matter how promising, especially in the late 1800s and early 1900s. Another dean, Alice Freeman Palmer, resigned as president of Wellesley upon her marriage to George Herbert Palmer in 1888. Although Freeman would have continued, Palmer would not allow it.

⁴Marion Talbot was following the example of her mother, who in 1888 had organized the charter session of the Association of Collegiate Alumnae, a meeting attended by both Marion Talbot and Alice Freeman.

⁵In fact, the University of Chicago did institute segregation by sex between 1903 and 1907, largely in response to protests by male students and faculty against the large number of women who were winning academic awards and scholarships (Talbot, 1925).

⁶Le Baron Russell Briggs, an English professor at Harvard, is credited as the first "student" dean to be appointed, preceding even Alice Palmer and Marian Talbot at Chicago. Overwhelmed with administrative work, both on and off campus, Charles Eliot, Harvard president and Briggs's mentor, appointed Briggs as dean for students in 1890. At the same time, Eliot appointed another faculty member to be dean for academic matters (Eliot, 1903; Brown, 1936).

⁷Some of these stereotypes were true. Thomas Clark published several articles, book chapters, and books, but foremost among them is a collection of tales of miscreant youths, aptly titled, *Discipline and the Derelict: Being a Series of Essays on Some of Those Who Tread the Green Carpet* (1921).

⁸George Zook, U.S. Commissioner of Education and later president of ACE, became an early and zealous convert to the concepts of the personnel movement. In 1937 Zook, Hopkins, and Lloyd-Jones would all serve on an ACE committee credited with propelling student personnel into the forefront of higher education.

⁹In fact, Bradshaw limited his involvement in the National Association of Deans of Men and focused his energies toward work on the personnel concept, often sharing committee assignments with deans of women and their peers.

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Increasing African Americans' Participation in Higher Education

African American High-School Students' Perspectives

Researchers and policymakers rarely include the individuals who are the focus of their studies in the development of solutions to their own problems. Although individuals or groups are often asked their opinions about their plight, they are seldom asked to participate in the development of programs or models that will improve their lives. The very individuals who would be most affected and who should be the first to be consulted are not given a voice in the dialogue, as if they had no stake in these important decisions that determine the course of the policies that will affect their lives. The process of deciding how to increase African Americans' participation in higher education, one of the most important commodities for upward mobility in our society, provides a prime example. African American high-school students are rarely, if ever, asked for their perceptions of the problems or, more important, for their ideas about possible solutions.

My intent in this study was to explore African American high-school students' perceptions of barriers to African Americans' participation in higher education and to explore their perceptions of effective programs for addressing the problems. In particular, this study asked two primary questions: What are the barriers African Americans face in their decision to participate in higher education? What are the solutions that African

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American students recommend to increase African Americans' participation in higher education? Of particular interest was how these students' responses could add to college choice and economics of education literature and to policy making.

This study is a qualitative inquiry across a range of cities, schools, and family circumstances, and it was intentionally designed to give African American students an opportunity to express their perceptions in their own voices. The study concludes that such voices provide valuable insights for researchers and policymakers.

Research in Context

There is still reason for great concern about African Americans' participation in higher education. The most recent (1994) *Status on Minorities in Higher Education* report indicates that African Americans continue to trail Whites in their rate of college participation by 9% (42% to 32.9%). The editors, Carter and Wilson (1994) in this thirteenth annual status report indicate that, in fact, "overall, the 1993 college participation rate for African American high-school graduates showed little change from 1992" and that African Americans had "experienced little improvement in college participation since 1990, when they posted a rate of 33 percent" (p. 2). The 1992 *Status on Minorities in Higher Education* report indicated that "unlike enrollment figures, which provide a snapshot of college attendance for a particular period, participation rates track both the current enrollment and the recent postsecondary attendance patterns of a given age group, particularly youth ages 18 to 24" (Wilson, 1992, p. 6). According to that report, the participation rate of African Americans in higher education in 1991 showed a 1.8% decline from 1990.

Findings on African Americans' participation in higher education from the 1994 *Status on Minorities in Higher Education* report are particularly troubling, because educators and economists are in agreement on the importance of increasing African Americans' participation in higher education. Reports such as that of the Hudson Institute Workforce 2000 have indicated that by the twenty-first century, one of three jobs will require schooling beyond the secondary level. In his book *Faded Dreams*, Carnoy (1995) discussed the importance of African Americans increasing their educational opportunities. More specifically, Simms (1994) discussed the direct relationship between higher education and African Americans' participation in the economy.

Other economics of education theorists (i.e., Becker, 1975; Cohen 1979; Freeman, R., 1976; Schultz, 1961; Thurow, 1972) have docu-

mented that although White Americans, over time, receive a higher return on their investment in higher education than African Americans, those African Americans who do attend higher education institutions fare better than those who do not. Previous research findings (Freeman, K., 1989) on the difference between White Americans' and African Americans' return on investment in graduate business training (using seven of the MBA programs that comprise the Consortium schools) revealed that African American MBA graduates in those programs received higher starting salaries, on average, than did White Americans. African Americans who receive a higher education also benefit themselves and society non-monetarily. For instance, those African Americans who are educated are more likely to educate their children.

Even though these findings suggest that African Americans are better off attending higher education institutions, the 1994 *Status on Minorities in Higher Education* report indicated that the African American college participation rate in the 1990s has fluctuated between stagnation and decline and that although the 1990s have shown a slight increase in African American enrollment in higher education, there is still a sizeable gap between White American and African American participation.

Much of the research on the cause of stagnation or decline in African American college participation has focused on the increasing investment students need to make to obtain a higher education, brought about, for example, by rising tuition costs and a decline in financial aid. (Nettles, 1988; Wilson, 1989). Little research has been conducted on African Americans' perception of the value of a college degree (the return on investment). Is it worth the cost? The recent cutback in funding for higher education specific to minorities makes it even more imperative to derive new ways of motivating African Americans to attend college.

Researchers have tended to focus on increasing the motivation and aspiration of African American students to attend higher education while excluding cultural considerations; the prescription for attracting and retaining students has been based on models that have paid little, if any, attention to the heritage and culture of African Americans. Moreover, through their policies and practices, policymakers and educators alike have tended to focus on remedies for increasing African American students' participation in higher education with little or no input from the students themselves.

Few studies have given voice to African American students, who are the ones that are in the best place to assess the problems and judge the programs that have most benefited them or their peers. By all accounts, the college choice process for African American high-school students is a complicated process, which necessarily has to take into consideration

the context of their culture; otherwise, the solutions could be based on models that may not fit the circumstances of these students. It has been my intent with this research to review previous background information on the choice process and at the same time allow these students to voice their own personal accounts. In order to increase African American students' participation in higher education — and it is obvious that current models are not working — it is critical that educators and policymakers better understand how these students, based on their experiences, perceive what has worked for them and will work for others like them.

*College Choice: To Participate or Not to Participate
in Higher Education*

Although there is much that researchers know about the process of choosing a college education, there is still much to learn about the decision-making process of underrepresented groups. Many questions are still unanswered: Are the influences that determine the choice to go to college the same for different cultural groups? At what age does the process to choose higher education begin? What role does econometrics really play in the process for groups such as African Americans? What role does secondary school play in the college choice process of underrepresented groups? Although these and other questions remain unanswered, this research explores what has been written about the majority culture to determine similarities and differences as they relate to African American students' perceptions.

Most of the recent college choice research focuses on college destination (Hearn, 1991; McDonough, Antonio, & Trent, 1995), better understanding of college matriculation decisions (Hossler & Vesper, 1993), or the marketing of colleges (Litten, Sullivan, & Brodigan, 1983; McDonough, 1994). However, much of this research — and even the multitude of earlier research that focused on how students choose to participate in postsecondary schooling — overlooked or did not include factors that were culture specific (Alexander et al., 1978; Alwin & Otto, 1977; Anderson & Hearn, 1992; Boyle, 1966; Hossler & Gallagher, 1987; Mortenson, 1991; Stage & Hossler, 1989). For example, although research certainly focused on social and cultural capital, it usually assessed these issues across all groups, not specifically the cultures of groups individually. Bourdieu and Passeron (1977), for example, tend to be the most widely cited on the topic of cultural capital; yet, it is not clear what their specific experiences have been with different cultures within the United States. The intent of the research presented here is to point out that although many theories on how students choose to partici-

pate in a college education are applicable to students of all socioeconomic groups, researchers recognize the need to better understand the choice process for minority students (Hossler, Braxton, & Coopersmith, 1989; McDonough, Antonio, & Trent, 1995).

Discussions of aspiration and decision making about attending higher education generally focus on cultural and social capital, economics and financial capital, or some combination of the two (Hossler, Braxton, & Coopersmith, 1989). However, Orfield et al. (1984) conducted a comprehensive study of access and choice in higher education in Chicago, which concluded that minorities are channeled into college based on defined geographic locations — where they live. Although most choice theorists would include the concept of channeling — a concept that is greatly underexamined — under the cultural and social models of decision making, it was considered separately in the framework for this study.

Cultural and Social Capital

In simplest terms, the concepts of cultural and social capital mean assets, in the form of behaviors, on which individuals and/or families can draw to meet a certain set of established values in a society. These societal values are generally established by majority groups in society and encompass such behaviors as the way individuals speak and the way they dress. The more individuals are able to meet these established standards, the more they are accepted by different institutions (e.g., schools) in society. Researchers such as DiMaggio and Mohr (1985) have suggested that cultural capital is typically a set of specialized social behaviors that makes one accepted at different levels of society. Other theorists (e.g., Coleman, 1990) have indicated that although social capital is related to cultural capital, it is more related to relations among persons. For example, Coleman (1988) explains social capital as the networks that provide information, social norms, and achievement support.

There is no doubt, however, that the cultural and social capital that students bring to the primary school classroom has tremendous implications for how they will be accepted, treated, and given the necessary information on which to make choices that will lead to postsecondary schooling. According to Cicourel and Mehan (1985), students are provided different educational opportunities because they arrive in school with different types of culture capital. It is generally accepted that African Americans do not bring the same kind of social and cultural capital to the classroom as Whites bring. It may have been this very underexplored phenomenon that led Orfield et al. (1984) to indicate that some researchers had posited a theory that Blacks and Whites form aspirations

in different ways and to say, "There has been little exploration of the social consequences of the huge gap between Black hopes and the reality of higher education for Blacks" (p. 16).

The sociological model of student choice (which is the umbrella model for cultural and social capital), at least as described by Hossler, Braxton, and Coopersmith (1989), focuses on the factors that influence aspiration. This model describes family socioeconomic level and student academic ability as predictors of students' aspiration for college. It is important to note that in a study with socioeconomic status held constant, African Americans were more likely than Whites to begin college (Olivas, cited in Orfield et al., 1984, p. 34).

Hossler, Braxton, and Coopersmith further indicate that expectations from others, such as parents, teachers, and friends, also influence student aspiration. According to Orfield et al. (1984), next to socioeconomic status, the secondary school a student attends is the primary structure that provides access to college. It is the school curriculum (academic vs. technical-vocational), counseling (regarding college availability and preparation), and grading that have tremendous impact on students' choice to participate or not to participate in higher education.

However, if it is the case, as some theorists (Bourdieu & Passeron, 1977; Coleman, 1988, 1990; Collins, 1979) have suggested, that post-secondary aspiration and high-school academic decision making grow out of the cultural and social capital of families, it seems logical that aspiration and choice are based on culture and not necessarily on societal (elite) values. It is ironic that models to increase aspiration have generally been based on society at large, completely ignoring the culture, in this case, of African Americans.

Econometric Model and Financial Capital

In addition to cultural and social capital as one of the major rationales for how students choose college participation, the econometric model and financial capital have also been postulated as rationales in the decision-making process (Anderson & Hearn, 1992; Hossler, Braxton, & Coopersmith, 1989; Orfield et al., 1984). In the econometric model, as these college choice theorists and economics of education theorists (i.e., Becker, 1975; Cohn, 1979; Johns, Morphet, & Alexander, 1983) have suggested, expected costs and future earnings expected from attending college are the primary considerations that impact students' perception of the value of higher education, although economic status, race, and education of parents may also have bearing on future earning potential.

The notion of future earning potential as it relates to African American students' participation in higher education has been a very much un-

derexplored topic. For example, Barnes (1992) completed a study on African American twelfth-grade male stayins (those who were persisting through high school), and in their responses found the following about those students' economic goals: "It is interesting that 43.7 percent indicated they wanted to become wealthy or comfortable rather than identify an occupation" (p. 96).

Socioeconomic factors, such as parental income level, occupation, educational level, and number of siblings, are also posited as indicators of students' choices regarding college participation (Alwin & Otto, 1977; Anderson & Hearn, 1992; Boyle, 1966; Hossler & Gallagher, 1987). Parental income and educational level have both a direct and an indirect effect on college choice. Indirectly, the lower the parental income and education levels, the less information they will have available to assist their children with financial decision making. Directly, as stated by Orfield et al. (1984), "Family income is viewed as causing inequalities in educational access" (p. 30). As an example, "Because family income is much lower for minority students than for White students, the former are three to four times more dependent on federal financial aid than the latter" (Morris, cited in Orfield et al., 1984, p. 25).

Although research is replete with information about the impact that the lack of financial aid has on participation in higher education (Cross & Astin, 1981; Nettles, 1988), what is increasingly clear is that there is a void in understanding how, in their decision-making process on college participation, different cultural groups interpret or perceive the expectations of future earnings.

Channeling

The term channeling can be defined as the environmental forces (whether individuals, institutions, or circumstances) that influence the direction of students' choice. Channeling, as it relates to college choice, cuts across social and cultural capital and economic and financial capital. That is, the more capital an individual has, whether cultural or economic, the more likely it is that he or she will be influenced by forces internal to the home. Aside from the influences inside the home, students are also channeled by influences outside the home in directions that impact their decision-making process to participate in higher education.

Outside the home, high-school teachers and counselors have tremendous influence on channeling students to choose or not to choose college participation (Barnes, 1992; Morrison, 1989; Orfield et al., 1984). According to Barnes (1992), 47.5% of the African American twelfth-grade male stayins in her study reported that "assignment to excellent teachers helped keep them in school" (p. 106). She further stated, "It seems clear

that one way to hold African-American males' attention and keep them interested in their school work is to assign them the best teachers in school. These teachers will hold their interest, educate them, and help them graduate" (p. 106).

Counselors play an equally important function. Morrison (1989) wrote, "An opportunity for minority students and their parents to engage in programs that provide current institutional information, a visual campus overview, interaction with faculty and alumni, and questions and answers can be of considerable benefit" (pp. 13–14). It typically is the school counselors who help facilitate this process for high-school students.

As further support of the importance of environmental influences on students' decision making, one of the most recent studies that specifically investigated the choice process of underrepresented groups was a study by Levine and Nidiffer (1996). In their book *Beating the Odds: How the Poor Get to College*, they analyzed interviews of 24 students from impoverished conditions, including African American students. They found a common theme among their subjects in their comments on "how they came to attend college" (p. 65). This common element, "was an individual who touched or changed the students' lives" (p. 65). Similarly, this was found to be a frequent comment of the students who were interviewed for this study.

The quality of high school understandably also has implications for whether students will choose college participation (Alexander et al., 1978; Anderson & Hearn, 1992; Boyle, 1966). For example, students at the top of their class in an inner-city school are less likely than their counterparts in a suburban school to have had access to college recruiters, are less likely to have visited a college campus, and are less likely to have had access even to the basic information necessary for college choice. Students who attend private/independent schools and suburban schools would more likely be influenced and channeled to attend higher education institutions than students who attend inner-city high schools. More than the location of the school itself, it is the services these schools provide — the assistance of teachers and counselors. "Schools in affluent suburbs encourage college attendance and channel their students into college preparatory curricula; schools in poor or working class neighborhoods tend to prepare students for jobs not requiring college training" (Jencks, cited in Orfield et al., 1984, p. 28).

Channeling, when used effectively, can mediate social and cultural differences, can impact the financial aid process and the economic outlook of students, and can influence the type of postsecondary school that is selected and the subsequent college experiences. As Orfield et al.

(1984) explained, in discussing the concept of channeling, "Changes in the school situation can change outcomes" (p. 28).

In summary, research from student choice theorists has provided information for understanding the factors that motivate majority students to participate in higher education. New research has been helpful in finding some common influences on the underrepresented poor (Levine & Nidiffer, 1996); however, additional research on the specific factors that influence African American students' motivation and aspiration to attend postsecondary schooling is sorely lacking. Hossler, Braxton, and Coopersmith (1989) and Orfield et al. (1984) have suggested that further research is necessary to examine minority motivation and aspiration to attend or not to attend a college or university. The research presented in this article contends that the best way to understand the motivating factors impacting the choice of African Americans to participate in higher education is to ask African American students, for they are in the best position to assess the problems and to offer possible solutions.

Design of the Study

To investigate the questions raised in this study, a qualitative inquiry method using groups was utilized. Why the qualitative approach? The voices of students are rarely heard in the debates regarding their lives, and the voices of disempowered students are even more silent, as stated by Nieto (1992). The purpose of this approach — using group interviews — was to allow a greater and more diverse number of African American students a voice and thus to provide a deeper understanding of their consideration of the value of higher education. According to Nieto (1992), qualitative studies can enable us to examine "particular situations so that solutions can be hypothesized and developed" (p. 5).

Data Collection Procedures

The data for this research were gathered through structured group interviews. A protocol was developed for the interviews based on pilot testing of a survey that was administered to a sampling of students in an inner-city school and in a private school in Atlanta, Georgia. (Atlanta was selected as a test site because of convenience of location.) After reviewing the responses on the survey, the researcher was left with many unanswered questions. The students' write-in responses indicated a desire to explain more about their answers, and therefore group interviews, as outlined by Nieto (1992), were determined to be an effective means of hearing students' voices.

Although there was a formal protocol, the interviews and guiding

questions were generally flexible and informal in order to allow students to express their issues and concerns more freely. For better control of reliability in the questioning process, the researcher personally conducted all of the focus group interviews. The interviews were audiotaped, and the tapes were transcribed by a professional transcriber. The data were reread several times to confirm coding.

Primary patterns and themes in the interview transcripts were evaluated based on procedures outlined in Miles and Huberman (1984), who explain that "pattern codes are explanatory or inferential codes, ones that identify an emergent theme, pattern, or explanation" (p. 67), and further, that "the bedrock of inquiry is the researcher's quest for repeatable regularities" (p. 67). The data were analyzed using what Miles and Huberman (1984) refer to as a "start list," a deductive approach and cross-group analysis. A master list of codes was developed around the conceptual framework, the pilot test, and the research questions, using general categories with descriptive marginal remarks. Based on the master codes, cross-group analysis was used to determine commonality in themes and patterns among the responses of the different groups.

Student and Site Selection

Focus group sessions were conducted in each of five cities that have large African American populations (Atlanta, Chicago, Los Angeles, New York, and Washington, DC). These cities were selected based on the previous work of Neimi (1974) and Simms (1995). Both indicated that these cities have the largest cross-section of African American populations, and Simms further noted that they are among the metropolitan cities where African Americans have the highest median income and lowest poverty rates.

Group interviews included African American students (male and female) in tenth, eleventh, and twelfth grades. These grades were the focus of this study because it is typically in these grades that students already have formed their perceptions about the worth of the investment in post-secondary education. In order to include a cross-section of school types, students in inner-city, suburban, magnet, and private schools (private and independent are used interchangeably throughout this article) in these cities were included.

As a first step, school board administrators in each city were asked to recommend schools based on the researcher's request for the stated school types. In each school, the principal or headmaster selected the group participants based on criteria the researcher outlined: all African Americans, equal number by gender, grade, and socioeconomic background (particularly in private schools). It is often difficult to gain ac-

cess to private schools to conduct research; therefore, when this study was given the support of the National Association of Independent Schools, it was decided to oversample private/independent schools to obtain as much research data as possible from this school type. In addition, the researcher wanted to assess the differences in responses to the research questions by students from different socioeconomic levels within the African American race. Such a cross-section of schools, particularly private schools with African American students, would be inclusive of a broader range of socioeconomic levels.

A total of 70 students participated in 16 group interviews. The breakdown by school, gender, and grade is as noted in Table 1. In the inner-city school in New York and in one of the inner-city schools in Washington, DC, interviews were conducted with two small classes. In each case, one class was college preparatory and one class was not college bound. Because these classes were much larger in size than the groups, the numbers are not included in the total participant numbers in Table 1; however, the responses of students from these classes were coded and are included in the analysis. In group analysis it is acceptable to include these responses, because the study was designed to find patterns and themes based on the theoretical framework and the research questions. Though it is recognized that there is an uneven distribution of school types across cities, the diversity and the number of schools and students participating in the study allowed a representative sampling.

The background of the students varied, but there were some commonalities. In most cases, across school types, the students were first generation college-goers — most were from homes where the parents were not formally (college/university) educated. Though students were not asked any questions about income, because the researcher's interest was in the students' responses in the aggregate, the school distribution provided a basis for assumptions about income level. That is, it would not be expected that the income of parents of students who attended inner-city schools is as high as that of parents of students who attend private schools. It is important to note, however, that several African American students in private/independent schools were on scholarships.

Data Analysis

As a result of the pilot test it was decided that the best way to examine students' perceptions of the value of higher education was to ask questions in a way that was not specific to their own college plans. One of the high-school principals said that American society places so much emphasis on higher education that for students to answer that they do not plan to attend a higher education institution following graduation or that

TABLE 1
Profile of School Participants in African American High School Focus Groups

School Type	School Location	No. of Schools	Partic- ipants	Gender		Grade Level		
				Male	Female	12th	11th	10th
Inner-City								
	Chicago	2						
	School A		2	1	1	1	1	0
	School B		4	2	2	3	1	0
	New York*	1						
	Washington, DC	2						
	School A		3	0	3	1	0	2
	School B*							
Magnet								
	Chicago	1	6	3	3	3	3	0
	Los Angeles	1	4	1	3	1	3	0
	Washington, DC	1	5	2	3	3	0	2
Private								
	Atlanta	1	5	3	2	5	0	0
	Chicago	2						
	School A		6	3	3	5	1	0
	School B		7	3	4	3	2	2
	Los Angeles	2						
	School A		5	2	3	2	2	1
	School B		5	2	3	1	2	2
	New York	2						
	School A		6	1	5	3	2	1
	School B		5	2	3	0	0	5
Suburban								
	Atlanta	1	7	6	1	7	0	0
Totals		16	70	31	39	38	17	15

*At the request of school officials, intact classes were interviewed as groups; therefore, the number of individual participants is not relevant to this table.

they do not perceive higher education to be worth the cost automatically makes them feel as if they were a failure. Martin Carnoy of Stanford University (personal communication, 1991) indicated that if the question is made specific to the student, the student's response might imply that higher education is worth the investment, but "for other people not me."

Thus, to encourage students to express their perceptions of the barriers (costs) to African Americans' participation in higher education, my question to them was, "Will you help me to better understand why there seems to be a lack of interest among African American high-school graduates regarding participation in higher education." In this way, students could more freely describe the barriers they perceived. This guiding question also served the two-fold purpose of eliciting not only state-

ments of barriers to participation but also expressions of student-perceived "solutions" to these barriers. Themes were developed from the most frequently stated responses by the students. As Levine and Nidiffer (1996) noted about the findings from the interviews of their subjects: "When asked how they came to attend college, each of them told almost the same story" (p. 65). Although the students in this sampling attended different school types and lived in different geographic regions, their responses varied little. It was like listening to the same song — different school, different city.

Students Discuss the Issues

Across school types and cities, four themes emerged from students' responses about their perceptions of barriers to African Americans' participation in higher education. These responses can basically be grouped into two broad categories: (1) economic barriers and (2) psychological barriers (see Figure 1). The responses relating to economic barriers can be described as a fear of (a) not having enough money to attend college or (b) not getting a job that pays appropriate to the level of education after completing higher education. In regard to psychological barriers, which appear to pose even greater challenges to educators and policymakers, the students' responses stressed three issues: (a) college never being an option, (b) the loss of hope, and (c) the intimidation factor. The students' responses to these issues were surprisingly similar across school types.

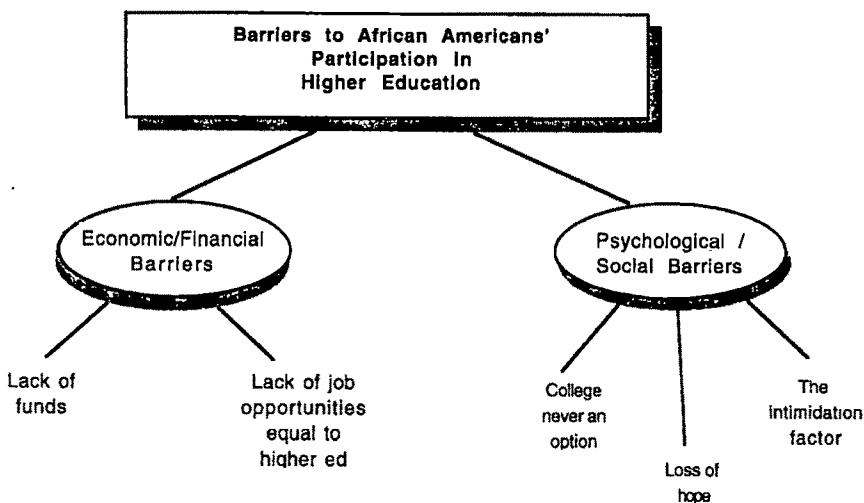


FIG. 1. African American High-School Students' Perceptions of Barriers to African Americans' Participation in Higher Education

Economic Barriers

Money and jobs. The students' answers were either related to fear of not getting a job that pays adequately or of not having enough money to attend college. For example, a student attending a suburban school in Atlanta stated the following:

A lot of people lose hope in college. They pass, and they are still not making a lot of money. They are still struggling.

A student attending an independent school in Atlanta responded:

It does not guarantee a job. [They] may not see the point.

That statement was echoed in many different ways by students across the country. In one independent school in Chicago, a student responded:

People are unaware that there are opportunities out there after college. People just kind of see it as: you get out of college and then what do you do?

At an independent school in New York, a student said this:

Well, maybe, because a lot of times when you are growing up, you might get the feeling and the outlook that, you know, it makes no sense because the jobs are not out there. A lot of people feel that way, like, "Why am I going through all this when I am not going to get a job, a job equivalent to what I would get if I didn't go? So what's the point." I know a lot of people feel that way.

The responses of students in inner-city schools more often focused on making money. They spoke of the need to have an income during and immediately after high school instead of postponing earning wages for four more years. For example, at an inner-city school in Chicago, a student responded in this way:

They [high-school students] start making so much money.

The issue of lack of money to attend college was also a concern expressed by students across cities and school types. One student at a suburban school in Atlanta responded with a statement that was frequently repeated by the students:

They don't have money to go.

Another student attending an inner-city school in Washington, DC, simply stated:

Money.

Psychological Barriers

College never an option. Another rationale that students often expressed as to why there was a decline in African Americans' participation in higher education was that college had never been presented as an option. The responses here centered on several factors, such as not being pushed by parents or by school personnel or, generally, as not receiving encouragement from anyone. A student at an independent school in Los Angeles passionately stated this:

Well, from personal experience, friends of mine are just not interested in college at all. They are into sports or something like that. It just seems that there is just not a want to go to college. People just don't want to do it. When I ask them, "Well, what are you going to do when you graduate from high school?" they don't know, but college has never been given to them as an option. It's never given. I don't know if that starts in the home with parents.

At an inner-city school in New York, a student had this to say:

Parents. Some parents say like, "You are not going to go to school."

A student attending a magnet high school in Chicago responded in this way:

Well, I think part of the problem is like you don't have anybody to help you, to want you to excel, to inspire you that you need to get a higher education, to help you understand that "we are here for you, and we are going to help you get through this."

A magnet school student in Los Angeles responded in a similar manner:

There seems to be a decline, I think, because there is motivation but it is coming from the wrong people. A lot of people are not as strong as myself, for instance, and you might need to hear you need to go to college from somebody else. I am not the one you want to tell you. You might need your parent or your best friend to tell you. They are not the ones telling you.

Loss of hope. The third theme that emerged out of this question was that students lose hope, which in some ways is similar to the previous theme — college never given as an option. It differs in that students seemed to be saying here that African Americans are missing a passion for pursuing higher education or that the benefits of college are not recognized. For example, a student at an independent school in Los Angeles said,

One of the things that I was really upset about in the school systems [public], how they took a lot of the fine arts, and that upset me, because kids — I mean I know that I did — need a passion, and they need something to look for, a goal. They need to say, "Well, I can go there, I will achieve my goal," and I think a lot of people don't have the drive, unfortunately.

A student attending another private school in Los Angeles echoed that response:

There is a negative influence, and people don't have hope any more for the future. I know a lot of people like that. They don't care anymore. They just don't care about their future, and they don't have any hope.

At a suburban school in Atlanta, a student had this response:

You watch TV, and you watch, like, movies, and you see kids stressed out and struggling in college and stuff. They don't want to go through all that.

In Chicago, a student attending an inner-city school perceived it in this way:

Most [students] just want to live a ghetto life. Because they belong to a gang at a young age, they don't come to school; the whole school is a gang bang. They don't come to school.

The intimidation factor. The final and most prevalent theme that emerged in response to the interviewer's question was what students referred to as the "intimidation factor." Interestingly, students attending independent schools generally held this perception about students attending inner-city schools. A student attending a private school in Chicago stated the following:

I think that a lot of times when you go to public school, higher education can be a really intimidating factor, especially if you go to like an inner-city public school, because you are used to seeing, you know, nothing but Black people going to school. If you see a White person at your school, hey, they are rare. But when you go to higher education, it seems as though that's really all you see, and you are sort of intimidated by these people who may not have necessarily gone to an independent school but who have had the benefit of a White education.

Students attending public schools who had visited a college/university campus were more likely to agree with that assessment than those who had not visited a campus. For example, a student attending a suburban school in Atlanta, said the following after an overnight stay at a university:

I went and stayed overnight at a university in Georgia, and I got to see how things are after classes and stuff, how they act. To tell you the truth, before I visited it, I was more excited about going there. After I visited it and saw a lot of the people there, it seems like they are not used to being around [Blacks]. That visit kind of turned me more off than on.

By way of explanation, he offered the following:

I visited such and such college, and I go there and everybody, well most of the people there are White, there is not a lot of Black people. To me I have al-

ways been around all Blacks. I just don't see myself being comfortable around [them], having a White person for a roommate. I just know that I am going to have to adjust when I go.

These students were asked whether they believed that the American society overemphasizes higher education participation. The intent of the question was to further understand if they perceived the worth of an investment in higher education for African Americans in general. Across school types, these students believed that not enough emphasis is placed on higher education participation. For example, a student in an inner-city school in Chicago said,

I don't. I mean, because I feel that there is not enough emphasis put on it, you know, pressuring a child to go to college. You have to. You can't even get a job at McDonald's without a high-school diploma. So just imagine what, say four more years, five more years for me, 1999, I couldn't even probably get a job, period. Nowhere. So I don't think there is enough emphasis put on it — about going to college.

At another inner-city school in Chicago, a student stated something similar:

It is a big deal. You want to become something better.

In New York at an inner-city school, a student responded,

The world is changing; you have to get more than a college education now. You have got to have more than a college education.

A student in a private school in Chicago remarked,

I mean people whose families haven't gone to college or haven't gotten asked if they should go to college. I think those families don't think about going to college, and I think that's bad. I think that people should figure out a way to make everyone understand that college is really an important part of what you do.

In sum, in spite of these students' perceived costs to African Americans' participation in higher education, they still perceived that the benefits far outweigh the costs. That is, they perceived that this country does not emphasize the benefits of participation in higher education enough.

Students Offer Solutions

The students did not hesitate to voice their opinions about what models were needed to increase African Americans' participation in higher education — it was as though they were waiting to be asked. As evidence of the seriousness of their thoughts about ways to increase African American students' participation in higher education, it is important to

note how their suggestions for solutions are closely aligned to their perceptions of the barriers. Notable also, is the similarity of the students' responses across geographic regions, school types, socioeconomic levels, and gender.

The sense of being accepted for who they are and having someone who encourages them to maximize their potential were the themes that were stressed most often. It is not surprising, then, that many students expressed "teaching other people about their culture" as one possible solution. Another response that was frequently voiced was having "more Black teachers — who want to be there." In fact, according to these students, what happens inside the walls of schools holds great importance for motivating African American students to participate in higher education. Therefore, the themes that emerged from these students' suggestions for solutions mostly centered on the conditions of the place where students are being taught — how schools are equipped, who is teaching, how they are teaching, and what they are teaching as it relates to who they are. Their responses can be classified into the following categories: (a) improve school conditions, (b) provide interested teachers and active counselors, (c) instill possibilities early, and (d) expand cultural awareness. (See Figure 2 for students' suggestions for programs/models.)

A student attending an independent school in Los Angeles captured the essence of the students' responses across cities when he stated the following:

I think that if we were to start a program, it would start in the elementary school and junior high school; in my opinion the kids would be more inter-

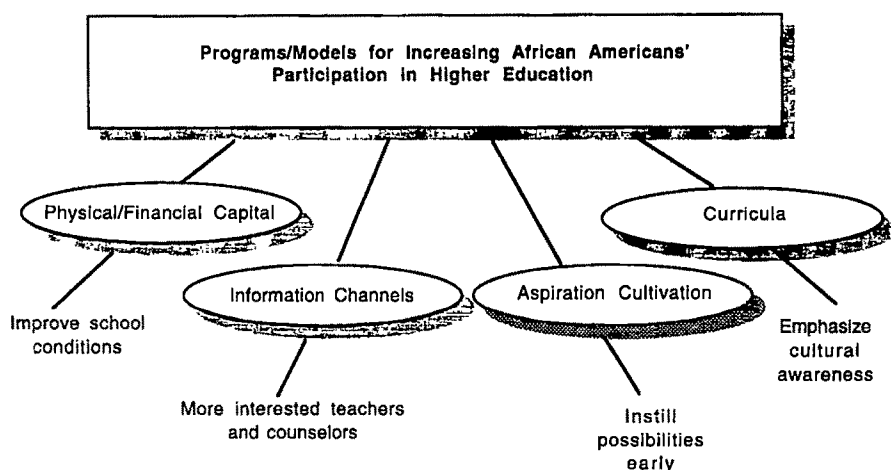


FIG. 2. African American High-School Students' Suggestions for Programs/Models to Increase African Americans' Participation in Higher Education

ested in learning then, [and] they would want to go to college and learn more. I think that the schools themselves in the Black neighborhoods [would], if more money was put into them, if [they had] better teachers. My hat is off to teachers, but I think that teachers need to be paid more to make them want to teach more. I think that if we do that and then still if African Americans are not excited about going to college, then we need a program; then I think we really need to just upgrade and improve the schools in our neighborhoods.

Improve School Conditions

The suggestion of the need to improve the conditions of the schools was stated frequently — the need to improve the physical condition of the building as well as the contents of the building, such as having more computers available for students. The following statements were heard from students across school types and across cities:

My cousin, she still lives in DC and she is still in elementary school, but for like the first three years up to the third grade she went to the same elementary school that I went to, and from the time I had been there until then it had just been in a steady decline, so finally my aunt just took her out and put her in a White school. [To transfer her child to another public school] she had to either lie or pay a fine or something. But [at] all costs she said, "My kid can't go to this school." At this White school, it is like four stories, huge and sprawling with lockers and science rooms, but in the other school, it was dingy, with cockroaches, rats. She used to hate to read; she used to scream and cry when she used to have to read. Now she comes home and starts her homework. She reads for pleasure now. That's the reason why I know that if the schools were improved, they would have a chance. (Independent school student, Los Angeles)

I know the reason why we don't have the things we need; it's because we are a minority school. Because my cousin goes to another high school, and they have a computer at every desk. We have a computer lab. You have to make an appointment to go the computer lab because it is always full. (Magnet school student, Los Angeles)

The school must know what it wants to do. (Independent school student, New York)

More Interested Teachers and Actively Involved Counselors

Even more frequently stated than the need to improve schools, interested teachers and active counselors were repeatedly suggested as ways to motivate students to participate in higher education. The students placed greater emphasis on their perceived value of having teachers who instill a passion in students, who believe in African American students' ability to learn, and who push students to maximize their potential. Students voiced their opinions about the role of the teachers in motivating students in this way:

I have been fortunate enough to have a teacher who made me work for everything. Mr. Sweeney [name changed] is a real mathematics teacher. Some other mathematics teacher might not be as good, but what I learned was college math analysis, and that is because Mr. Sweeney got out his paycheck and went and bought these college prep books. (Magnet school student, Los Angeles)

... then also have a lot of Black teachers. (Independent school student, New York)

A program, like a different type of teaching program. Like [now] most students are in the chairs, and teachers are at the board. I think more discussions should be involved in the classrooms and not so much reading the books. (Inner-city school student, New York)

Enthusiastic teachers come across interesting. Teachers are everything. (Independent school student, New York)

There are not that many Black teachers here at all. I mean, this school is an excellent school for an education, but it would probably even be better. (Independent school student, Chicago)

I think it's school. I don't have many friends outside of school, but the couple that I do have, the way they [describe it], it's like the teachers don't even care if they come to school everyday and stuff like that, and I don't know if it's exaggerated, but it is completely different from here. (Independent school student, Chicago)

Teachers and friends, or something, encourage them to go on with their education. (Inner-city school student, Washington, DC)

You know, I had teachers who, like, were strong. They motivated you to do your work and helped you a lot. I think some schools in the Black community, they don't have enough money to buy books that will teach the kids; so, you know, the teachers don't want to teach it, then it is not good material and the students don't want to learn. So I think it is like you got to get your money together, put it in the schools where it counts, you know, and help these kids. (Independent school student, Los Angeles)

In addition to some students' stated responses about the importance of having counselors actively involved in the process to increase African American students' participation in higher education, observations and conversations with school officials confirmed students' statements. It was personally noted by the researcher that in those schools that had structured counseling programs, there tended to be a greater number of students interested in higher education participation. As would be expected, the private schools had active college-related events, and in those public schools that did have active counseling programs, the success in stimulating and preparing students to participate in higher education seemed equal to that of private schools. The following statements demonstrate how strongly students felt about active counselor involvement in assisting students in the college process:

Because we are pushed. We are pushed to go on to higher education and then get a job. That's Ms. Getter's [name changed] whole basis [for] being here basically. (Magnet school student, Los Angeles)

Maybe get some college programs in high school. To prepare them for college so they won't go and be scared what it is going to be. (Inner-city school student, New York)

Counselors generally have the information as far as scholarships. Certain counselors have information about internships, different opportunities for us so that you can get to work, specific jobs where you get to go into that field of your interest to see if that's what you really want to do. If you keep in contact with these individuals [counselors] then, I mean, these who haven't really had, have the opportunity. (Magnet school student, Washington, DC)

Counselors do not help. They discourage you, especially in public schools. They tell you such things as, "You are not qualified." They do not care. (Independent school student, New York)

I have got career beginnings. It's a program to help me decide what college I want to go to and where. And [it] helps you with your financial aid. (Inner-city school student, Chicago)

They let us know about upcoming scholarships from this point on. They have something like a senior letter, and every time a new scholarship comes up, they put it on that list. (Suburban school student, Atlanta)

Junior year you start having classes about college courses. You have to have required meetings with the counselor. (Independent school student, Chicago)

Counseling. (Inner-city school student, Washington, DC)

Instill Possibilities Early

The idea of instilling at an early age an awareness of the possibilities of attending college, as voiced by these students, affirmed the need for providing students with information on possibilities, requirements, and outcomes earlier than in high school. In addition, these students discussed the need to develop excitement about higher education and prospects for jobs after completing higher education. A group of students attending the same private school in New York summarized it best:

I think what you should do [is] like early, start really early in third, fourth, fifth grade. Get them involved in stuff that you know you have to [learn] to go to college to get a degree like in communications. Give them a lot of opportunities, and in turn take them places and get them excited about, you know, get them out in the world to get an education.

Show more Black people with jobs that pay, who have been to college.

Oh yeah, just to show people who have been to college, Black people preferably, who have jobs that pay a lot of money, like maybe engineers and architects. More higher paying jobs for people who are Black.

We have to learn how to make college seem like the best four years of your life. (Independent school student, New York)

I would tell someone in the younger age bracket to always look for a challenge, and school is always going to be a challenge. (Magnet school student, Washington, DC)

If you can show them what they can be or who is successful and how far they could really go, you know, if they do this and do that, you are already showing them like a light they could try to get to. (Independent school student, Los Angeles)

Invest more in younger age. (Independent school student, New York)

They [students] just have to realize, and they are not realizing it soon enough, because by the time they get in here they have got to pay for those classes that they didn't pass. (Suburban school student, Atlanta)

I think people can be helped more when they are younger. It's like hard to convince tenth or eleventh graders that never cared about college or anything. (Independent school student, Los Angeles)

Emphasize Cultural Awareness

Out of very passionate discussions about their culture, students, particularly those students who attended independent schools, voiced the need to increase cultural awareness as a way to motivate more African Americans to participate in higher education. Also included in this category was the need for more male role models.

We need more Black male role models. (Independent school student, Los Angeles)

More role models that don't play sports all the time. I mean, I love them. I love basketball, but we need to get kids at a young age to love education and to feel the need that they have to do this to survive in the world, because without it you are just going to be like lost. (Independent school student, New York)

I think when they are young you need to teach them backgrounds of other cultures, not only European. European history, and then are you saying [it's] the ideal school or something like that? (Independent school student, New York)

I have had a hard time in African American history because I don't know about Black history, because I was never taught. I was always taught other things. It's so backwards. I think it's crazy. How do you skip the years which were some of the most important times, which helped in the creation of America. How do you skip that — from early to modern? (Independent school student, Chicago)

There should be Black history. (Independent school student, New York)

I know early world history, and they do not incorporate African Americans in their history. (Independent school student, Chicago)

They don't really teach you about Black history. Like this is Black history month; we will focus on Black people. But it is not worked into the curriculum as a whole like, you know, as a whole thing. (Independent school student, New York)

Within their communities across cities, students, particularly students attending private schools, indicated tremendous pressure to be accepted, describing the feeling of "living in two different worlds." Several students described their experiences of having their friends in their communities accuse them of "acting White," because they attended private schools, and at the same time feeling the pressure to make themselves accepted in their school environment.

Interpretations and Implications of Students' Thoughts

This study clearly points out how important it is that researchers not only include individuals as subjects in their studies but also include their voices in the development of solutions to their problems. This would particularly appear to be appropriate when studies cut across cultures. Student choice and economics of education theorists have long documented the factors that influence the decision-making process of students (see the college choice section for a listing of theorists), but one rationale why these models and programs have failed to increase African Americans' participation in higher education might be a lack of understanding of how these models and programs would work within the context of the African American culture.

For example, these research findings do not disagree with those of the student choice theorists, which note the importance of parental education and income. However, when these students describe barriers and possible solutions to African Americans' participation in higher education, they stress the importance of the elementary and secondary school environments. The school system plays an even greater role when neither parent has participated in higher education, for many of the students in this sample came from such homes. Understanding this in the context of the African American culture has merit.

However, this finding should not be interpreted as meaning that students who do not live in the traditional two-parent family, particularly in the inner city, are not aware of the value of higher education. The research presented in this article suggests that although these students are aware of the barriers to African Americans' access to higher education, they still perceive that it is worth the costs. In fact, researchers such as Anderson and Hearn (1992) and Orfield et al. (1984) have indicated that when socioeconomic background is held constant, African Americans

have a higher aspiration to participate in higher education than Whites. Therefore, researchers should use caution in interpreting lack of information as lack of interest. In fact, these students offered viable options as ways of increasing the information channels.

As indicated by these students, it has become increasingly clear that the information pipeline to students, particularly to those students who do not benefit from having the information on the value of higher education passed down to them through their families, must begin much earlier, and it must be incorporated in some structured format within the schools. It is in this way, as Orfield et al. (1984) have suggested, that channeling can improve the choice process for students. In response to those who say that public schools cannot be all things to all people or that schools are already doing enough, this process of channeling does not imply that the information process has to be a specific course imposed on teachers. However, it is noteworthy that among the schools participating in this study, the public schools with structured counseling programs (all independent schools had them) had a larger number of students participating in higher education.

When the students who were interviewed in this study discussed instilling an awareness of possibilities early, they appeared to be saying that the problem is more than a lack of information. Their responses could be interpreted as meaning that if schools are not going to provide information through teachers and counselors, then, at a minimum, educators should not take away students' passion for achieving higher education by instilling in them the idea that because of their social and cultural background, they cannot aspire to attain it. This interpretation would support these students' voiced perceptions that the psychological barriers of "loss of hope" and "college never an option" are strong factors impacting African Americans' participation in higher education. It is here, in the further study of social and cultural capital, that researchers can shed more light for educators on why these students voiced the perception that they are not instilled with a passion to participate in higher education but are actually being discouraged. The negative side of the cultural capital concept, as defined by Bourdieu and Passeron (1977), is that educators come to their classrooms with established views of acceptable actions and values expressed in behavior patterns that are typically based on the majority culture. In school settings where students do not meet those "established views," these educators early on begin the process of stripping away the students' personal cultural values, which can lower their perception of their worth and leave them without hope of ever becoming high achievers and ultimately robbing them of their passion for pursuing preparation for a college education.

Given these realities, it is understandable that these students would echo the importance of emphasizing cultural awareness. This aspect of their model (see Figure 2) is one that student choice and economics of education theorists have not explored and one that could bear more extensive review. What exactly is the role that increasing cultural awareness in the curriculum plays in increasing students' participation in higher education? According to these students, it would at least improve their sense of self and instill a passion for learning. Ogbu (1988) wrote about the burden of "acting White," and these students appeared to be saying that "acting White" is just the reality of being Black in America. That is, instead of feeling as though their interpretation of "acting White" were a negative about their culture, I interpret it to mean that if their culture were more included in the curriculum and in other aspects of the American society, African American students could be themselves across settings and not have to leave their culture behind in their homes. This research also demonstrates that the views of students, at least in this sample, cut across class lines, a finding that provides impetus for the growing notion that cultural views (that is, behaviors, values, and frames of reference) outweigh class differences.

It seems logical, then, that African Americans, and in this case African American high-school students, are in the best position to assist educators and policymakers in the development of solutions for increasing African Americans' participation in higher education. This research poses some challenging questions for policymakers: In the absence of parental encouragement to attend college after high school, what are ways of including African American students in decision making regarding their lives? What different roles can K-12 and postsecondary schools play in addressing students' concerns related to cultural considerations? How should educators address these students' concerns of the psychological barriers that they perceive Africans Americans face in making college choices? How can educators and policymakers address these students' fear of future earnings not being appropriate to the level of education after completing higher education?

Commentary

These findings demonstrate that the students who participated in this research tended to voice concerns and solutions that could impact the process of choosing a college education for African Americans in general. Workable solutions have to come from the sources most familiar with the circumstances. There is good reason for optimism. Based on the extensive research student choice and economics of education theorists

have developed on understanding the college choice process, the development of models and programs to increase African American students' motivation and aspiration to participate in higher education is within reach. The research presented in this article points out that the missing link to previous research has been the voices of the students. The next step is for educators and policymakers to work with African American students, to empower them, to investigate their thoughts more formally, and to develop sites to test their models.

It is clear that current models are not working and that these students' ideas are solid ones. It would be difficult to find anyone who would disagree that physical and financial resources are necessary for inner-city schools, that better teachers and interested counselors are needed, that instilling possibilities earlier is indicated, and that having, across all school types, a curriculum that is inclusive of all cultures (not just for one event or one month) is desperately lacking.

However, all too often, researchers unfamiliar with the historical and structural differences of cultures continue to define the problems and develop the solutions based on models that are applicable to the majority population. In order to develop workable programs and models, educators and policymakers must begin the process of hearing the voices that are all too often regulated to the margins, for, logically and intuitively, those are the only voices that can possibly hold the solutions.

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Coordination and Competition in Postsecondary Distance Education

A Comparative Case Study of Statewide Policies

Introduction

Colleges and universities better be very sure of the value we add in our residential environments. While we still believe that "character" education requires person-to-person contact and long-term mentoring, we had better substitute technology where possible so we can concentrate on what makes us unique. My colleagues and I feel a little like Rolls Royce employees when they first heard of Henry Ford (Jim Mannoia, Houghton College, 1995).

This quote illustrates the struggle of traditional institutions of higher education in the face of rapid technological change. Faculty and administrators, preserving their market niche or carving out new ones, search for the proper balance between face-to-face and technology-enhanced instruction. While institutions wrestle with the appropriate place and use of technology, state governments press them to accommodate more students at a lower cost.

As the principal providers of higher education services in the United States, state governments are concerned with providing greater access to postsecondary opportunities. Accommodating more students during fiscal retrenchment requires policymakers and educators to look for creative solutions. One solution, which has captured the attention of state policymakers, is making greater use of new technologies, including postsecondary distance education.

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Background for the Study

Postsecondary education is no longer tied only to traditional campus classrooms, nor does it necessarily originate in the same state or even the same nation as the user. These new forms of instructional delivery are facilitated through the practice of *distance education*, one of several terms applied to the use of technology in teaching. It can mean attending class via interactive television at a local school or community site. It can mean signing on to the Internet for course materials and e-mail with an instructor. It can mean taking courses by videotape or CD-ROM in a self-paced format. For this study, distance education was defined as any formal approach to learning in which a majority of the instruction occurs via *electronic* communications. (Print-based correspondence study was not included in this research). Analysis of the data reveals that state-level coordination of distance education can enhance service to students, leverage state and institutional resources, and reduce duplication. Underpinning and informing the study were three major domains of analysis from three separate bodies of literature: statewide coordination of public higher education, competition, and public policies governing distance education. (For a full review of each literature domain, see doctoral dissertation by Rhonda M. Epper, 1996.)

"For the greater part of the century, the relations between public institutions of higher education and state government have been marked by increasing anxiety" (Moos & Rourke, 1959, p. 1). The anxiety of the past two decades has been caused in part by the changing role of state government from provider of financial support to partner with institutions in the resolution of key policy issues (Hines, 1988). In the 1990s, statewide coordinating and governing boards are deeply involved in the resolution of key higher education issues — both within the traditional policy realm of access and affordability and in newer areas, including pedagogy and instructional quality. The origins of state coordination are rooted in planning and regulatory functions, which were created during a time of growth and prosperity for higher education. In the 1950s and 1960s, regulations were needed to control program duplication, maintain mission distinction, and wisely expend public resources to build new infrastructure (Glenny, 1959; Glenny, 1971; Berdahl, 1971; Millett, 1984). Today, state coordinating agencies maintain those regulatory responsibilities, but also play more progressive roles of "convener," "issue champion," and "change agent" (State Higher Education Executive Officers (SHEEO), 1997). A perennial policy issue in every state remains how to provide citizens greater access to postsecondary opportunities. To the extent that distance education offers a potential solution to this and other issues, it spans both educational and political jurisdictions.

Often in conflict with political jurisdictions, technology and distance education have introduced new competitive forces to higher education. In his 1986 book, *Higher Learning*, Derek Bok described competition as one of three distinguishing characteristics of American higher education. Colleges and universities compete with one another for faculty members, for students, for funds, and most importantly, for prestige. However, there is no single goal toward which the competitive rivalry is addressed, as is the case in for-profit industries, i.e., market share and profits (Porter, 1980). Educational innovations, such as new instructional technologies, often are perceived as adding prestige and competitive advantage in attracting students. However, the desire to innovate and adopt new innovations often is not strong enough to overcome the inertia of tradition. In for-profit industries, competition is the mechanism that drives individuals and organizations to surmount such inertia and to strive continuously to improve. But competition, notes Bok, "succeeds only to the extent that customers, judges, or other trusted sources can define success in some legitimate way in order to establish a standard and reward those who best achieve it" (p. 177). In higher education, that ability is ambiguous at best. Throughout this study, competition was demonstrated as a powerful force that changed both institutional and public policy in the states under investigation.

Scarce research exists that examines the influence of public policy on distance education programs in the United States. Such influence is a major focus in the present study. Important previous work in this area includes Nancy Zeller's (1995) "Distance Education and Public Policy." In this article, she compared the United States' lack of a comprehensive public policy agenda for distance education to such policies in Canada and in other countries. Her study showed that government interest in the United States is focused on technical, regulatory, administrative, and cost issues rather than more pressing public policy issues, such as improving access to postsecondary education. For a successful statewide program, according to Zeller, campus administrators must consider access and other important policy issues when developing distance education programs. Likewise, state leaders must reexamine outdated policies that may interfere with institutional plans to extend educational services to distant students.

The relationships between state coordination, distance education, and the competitive pressures brought to higher education through new technologies are of escalating political and educational importance. In its 1995 *Campus Trends* the American Council on Education identified more than one third of higher education institutions making extensive class use of electronic technology. Nearly half of all institutions responding to the annual survey indicated that they would offer more

courses through distance education over the next five years (El-Khawas, 1995). In the 1996 survey nearly half of institutions responding cited their increase in administrative and instructional technology as one of the most significant institutional changes of the decade. Furthermore, 70% of public institutions cited increased competition involving distance learning (El-Khawas & Knopp, 1996). With so many institutions now interested in distance education, it is vital that state-level plans and policies for distance education be compared and explored.

Purpose of the Study

This research examined three states' experiences with distance education development and the implications for the public policy approach taken. The principal objective of the study was to better understand forces for coordination and competition in state systems of higher education by examining state policies and structures for distance education. A secondary objective was to extend the research on statewide coordination of higher education by combining higher education and business conceptual models to explain the changes brought about by technology. Guiding research questions developed from the literature include the following three major concerns:

1. In the states under investigation, how has the competitive environment in higher education changed as a result of distance education, particularly in the market for nontraditional, adult education?
2. What distance education structures, if any, are most suitable in helping a state meet its goals for improving access to postsecondary education?
3. Technology and distance education have introduced new forces in higher education, resulting in a conflict between traditional principles of statewide coordination (limit duplication, divide up turf, equalize resources) and those of competition. How are these conflicts being resolved in the three case study states?

Using the conceptual lenses of coordination, competition, and distance education public policy, each of the three questions was explored in Minnesota, Maine, and Colorado.

Method

This study employed a comparative case study research design using qualitative data. The nature of the research questions in this study required an in-depth exploration into state-level policies and politics surrounding distance education. The complexity of the variables, therefore,

made the qualitative paradigm a logical choice for the type of data to be used within the case study design (Merriam, 1988; Yin, 1989). The overall study consisted of three case studies, with the primary unit of analysis being the state-level approach to postsecondary distance education.

Data Collection

The multiple case study design encompassed state-level planning efforts for postsecondary distance education from three states: Minnesota, Maine, and Colorado. These three states were chosen through purposive sampling. Additionally, an expert panel from the field of higher education public policy provided advice and review during the selection process. Final selection of the state cases was based on the expert panel's advice and a review of statewide distance education and telecommunications plans for higher education. This review included an examination of enabling legislation, state reports, telephone interviews, and a review of the literature. As Yin (1989) suggests, multiple sources of evidence were used to gather data. Document analysis, interviews, and observations all were used as evidence in this study.

Document analysis and observations. For each state, the researcher examined documents located in the SHEEO library relating to postsecondary distance education. These documents included statewide plans, legislation that addressed distance education, and system or coordinating board policies relating to distance education. These documents were supplemented by additional documentation collected during site visits to the three states. Documents collected at the sites included such items as planning documents, policies, legislation, memoranda, meeting minutes, and agenda items. In addition to the documents and interviews, direct observations were conducted of legislative hearings in Minnesota and Colorado. Field notes also were utilized to record the researcher's notes, observations, reflections, and ideas throughout the research process.

Conducting the interviews. Between February and September 1995 unstructured, in-depth interviews were held with key informants in each state. Because many of the informants were high-level officials within their respective states (e.g., chancellors, SHEEOs, campus presidents), the researcher used a specialized form of in-depth interviewing described by Marshall and Rossman (1989) as "elite interviewing" (p. 94). The researcher conducted more than 40 interviews lasting from 45 minutes to 2 hours each.

Data Analysis

Through the process of data analysis, conceptual categories were developed from interview, observational, and documentary data sources. Conceptual frameworks derived from prior literature were used in build-

ing the categories, although new variables and relationships also emerged. In the process of analysis, data were organized, reduced and consolidated to form the case record or case study data base (Yin, 1989). To facilitate data reduction and interpretation (Marshall & Rossman, 1989), categories and themes were developed to interpret the meaning of the data.

The data analysis process was aided by the use of a qualitative data analysis computer program, QSR.NUDIST. The software creates an environment to store and explore data and ideas, to minimize clerical routine and maximize flexibility, and to discover new ideas and build upon them. For the present study, NUDIST was used primarily to code and index interview segments online, which were later retrieved, sorted, and regrouped into more meaningful categories. The final step in the analysis process was to build abstractions across the multiple cases in the study. The NUDIST software greatly enhanced the researcher's ability to compare and contrast interview responses through searching the index system by state or by thematic issue.

In the next three sections a summary of each case study is presented. (For a complete discussion of the context, events, and implications in each state, see doctoral dissertation by Rhonda M. Epper, 1996.)

The Minnesota Case Study

Minnesota maintains a long tradition of providing its citizens access to postsecondary learning opportunities, as evidenced by the 64 public institutions in 1995. In addition, substantial state financial aid dollars help support a sizable and strong private higher education sector. Approximately half of all adults 25 or older in Minnesota have pursued some form of postsecondary education. The state ranks 13th nationally in annual public FTE enrollment per 1,000 population, which at the time of this study was 117% of the national average (Minnesota Higher Education Coordinating Board (MHECB), 1995).

In the early 1990s Minnesota faced growing demand for higher education in the Twin Cities area as well as the challenge of providing access to programs in sparsely populated rural areas of the state. In 1993, at the request of the Minnesota Higher Education Coordinating Board, the legislature allocated nearly \$5 million to establish a statewide higher education telecommunications network. The legislature also established a Telecommunications Council with authority to plan and develop the statewide network, now known as the Learning Network of Minnesota.

In 1995 MHECB made some drastic legislative recommendations for change in the way higher education is delivered. Essentially, it proposed

the adoption of a structure for alternative delivery of higher education modeled on the British Open University and the British Columbia Open Learning Agency. The structure would initially have worked as a consortium of existing colleges and universities but eventually taken on a life of its own, developing and distributing course materials. The justification for such an entity was based on MHECB's growing belief that electronic courseware can increase learning at a lower cost. At the same time MHECB proposed that the legislature establish a "credit bank" to evaluate and award credit for the new open learning agency (MHECB, 1995).

Joseph P. Graba, then executive director of MHECB, crafted the 1995 legislative recommendations, which argued that the legislature's investment to date in the Learning Network of Minnesota was simply in the "technological highway, not what travels across it" (MHECB, 1995, p. 15). Graba described a growing movement that provides courses to students outside traditional classrooms — citing Mind Extension University, the National Technological University, and a commissioned study by Helmut Schweiger (1995) of distance learning worldwide. The use of multimedia course materials was noted as a growing trend. The MHECB recommendations stated:

The use of distance education courseware materials will proliferate. Unless Minnesota becomes a developer, even an exporter, of such materials, it will become an importer, relying on the expertise and knowledge of organizations and institutions beyond its borders. . . . Minnesota is faced with a choice: whether simply to take advantage of the materials prepared by others and become an importer of such material or to draw upon its own talented faculty and successful institutions to develop and disseminate courseware that contributes to learning inside and outside Minnesota (MHECB, 1995, p. 17).

That scenario apparently compelled several legislators to take action. Based on the MHECB recommendations, identical bills were introduced in both the senate (March 13, 1995) and house (March 9, 1995) to create an alternative delivery structure and credit bank and mandate the coordinating board to begin planning for an open learning institution in the state. These bills were sponsored by key legislators who carried a good deal of influence in key committees (Lewenstein, personal communication, 1995). The bill, if enacted, would create a consortium of the University of Minnesota, the newly merged Minnesota State Colleges and Universities (MnSCU), and the Minnesota Private College Council to (1) identify statewide learning needs, (2) acquire, develop, and distribute learning resources, and (3) facilitate the delivery of learning opportunities to residents of Minnesota (Minnesota House of Representatives, 1995, pp. 1–2).

In essence, the bill would have created a new educational entity. Stated in the MHECB recommendations was, "This initiative initially challenges the existing institutions and systems to meet the needs within existing structures," but ultimately it sought independent status as advocated in the Schweiger study. The recommendation continued, "This proposal envisions the initial effort to implement alternative delivery evolving into the creation of an open learning institution that could grant degrees" (MHECB, 1995, p. 17).

Response from the Higher Education Community

In interviews with various constituencies of higher education, respondents were asked to respond to the proposed legislation. Reactions were mixed. David Laird, president of the Minnesota Private College Council, was less than enthusiastic, stating, "The frustrating part of the discussion is that the coordinating board is myopic by thinking Minnesota institutions should be necessary partners. Their thinking doesn't allow for other strategic relationships outside the state that may be much more natural or more important" (Laird, personal communication, 1995). Don Riley of the University of Minnesota was even more direct with his objections:

What wasn't clear to me in Joe's proposal was some sense of competitive advantage. In our partnerships with industry and other institutions, we will only enter into areas that we feel are strategic, where we have competitive advantage and intend to remain a leader in the field. Where we don't think we can compete, we will outsource to someone else. It's not clear to me that the consortium will work this way. They have an overinflated view of their ability to deliver and compete in the marketplace (Riley, personal communication, 1995).

Others, however, indicated an appreciation for the need and potential for such a delivery structure. Terrence MacTaggart, then chancellor of the State University System said, "I think the idea is a good one." But he advised caution:

The territorial concerns are going to be paramount. MHECB is fighting for its identity right now, and other people are probably going to look at it as an attempt to provide a rationale for MHECB. The other problem is there is a history of conflict between MHECB and institutions, and unfortunately a good idea like this one is going to have an uphill fight (MacTaggart, personal communication, 1995).

The president of the faculty union for the State University System, Edgar Twedt, had not been following the legislation. Even so, his reaction was negative. "I think the faculty response will be negative because

of bad feelings toward the coordinating board, even without evaluating the merit of the idea. Faculty will think MHECB hasn't served a useful purpose in the state, so they must be trying some other way to control" (Twedt, personal communication, 1995).

In April 1995, during the final days of legislative deliberations, the newly appointed academic vice chancellor for the newly merged Minnesota State College and University system (MnSCU), Dennis Hefner, publicly came out in opposition to the bill. In a letter to the state representative who authored the legislation he stated:

I have continuing discomfort with the bill, even after the changes suggested at our meeting. In particular, the arguments for a statewide marketing program do not add much value to the distance learning functions already occurring within the state. Secondly, I feel very strongly that the long run viability of the approach requires significant involvement of on-campus faculty. Moving away from direct campus responsibility for distance learning could undercut the growing inventory of distance learning programs offered by MnSCU campuses and may lose much of the public support which has been generated for distance learning (Hefner, 1995, p. 1).

In addition to this system opposition, some legislators questioned the wisdom of creating yet another council for higher education telecommunications, when they had just funded one in 1993. According to MHECB staff member Phil Lewenstein, some saw the new structure not as creating healthy competition, but as "another mouth at the table" at a time when they were having trouble funding the existing 64 public higher education institutions (Lewenstein, personal communication, 1995). The bill was never passed by the 1995 legislature, but because neither the house nor the senate took action to defeat the bill, it remained an active piece of legislation and finally died in 1996.

It is important to note that all discussions of postsecondary education during this study were colored by a recently enacted merger of the state's community colleges, technical colleges, and state universities into a new "Minnesota State Colleges and Universities System." The merger was expected to achieve efficiencies by reducing administrative overhead and possibly merging or closing some institutions. With all public colleges now under one board (with the exception of the University of Minnesota), the role for the state's central higher education agency was called into question. Thus, at the very time MHECB had introduced a major initiative for distance education in the state, its own future was dubious at best. Ultimately, the distance education initiative failed, and the agency was abolished in July 1995. Even so, the interactions between the state and the institutions over distance education is-

sues at a time of political turmoil are instructive and central to the findings of this study.

Competitive Forces

Changing student demographics, structural changes in revenue sources for states, technological advances, and a changing economy that depends more heavily on the skills and knowledge of its workers are all forces that invite the entry of new competitors into higher education. Traditional higher education, according to two higher education leaders, has not adjusted quickly enough or well enough to these changes. Joe Graba of MHECB expressed his dissatisfaction with higher education's progress:

A knowledge-based economy focuses attention on how well we are doing and how responsive we are in deferring to the needs of our learners. This may sound overly harsh, but I think that higher education is a mainframe operation in a world that has moved from mainframes to minis to laptops. And we're still back in the mainframe mentality in higher education (personal communication, 1995).

Terrence MacTaggart, then chancellor of the Minnesota State University System, also supported this view:

I think a pretty good case can be made that much of the falloff in credibility in higher education has been our own fault for failing to prove relevant performance to the various customers we serve — students, families, legislators, the state. . . . I think we need to reform and improve ourselves or be content with a much diminished role and reduced support in this enterprise (personal communication, 1995).

One type of threat perceived by several persons interviewed was private sector companies moving in not only to meet new demand, but to take away market share from traditional higher education. In a conference designed to build support for the 1995 alternative delivery legislation, Joe Graba painted a sobering picture for legislators and others present:

The fastest growing demand and greatest learning needs are with the currently employed. Our higher education institutions need to escalate attention to this unmet need. It has been in the last 10 to 15 years that this market has exploded. Higher education is allowing the massive development of private sector competitors (Open and Distance Learning Conference, 1995).

In a similar legislative forum, Graba further emphasized this point:

We need to think radical here. Higher education in the mid-nineties is where the railroads were in the mid-forties. Economics is going to change learning. We will see a proliferation of for-profits emerging to meet unmet needs.

. . . We shouldn't be overly threatening, but this is serious! We're creating our own competitors. We need to bring up our own provider base (Policy-makers Forum, 1995).

For other individuals interviewed, the threat of competition was perceived to be not nearly so close, nor so daunting. Terrence MacTaggart expressed skepticism over the possibility that traditional higher education would be driven out of business: "The market for higher education is not perfectly competitive; it's monopolistically competitive. I'm not certain people would make that many different choices if there were more providers" (personal communication, 1995).

Those holding a more conservative position, therefore, believed the demand for traditional higher education would not significantly change, despite technological advances. For those making the decision to offer the proposal, however, the threat of competition by new providers was a clear factor. Individuals in the latter category existed outside academia and included legislators, coordinating board members, and coordinating board staff.

Ironically, one of the reasons for the proposal's introduction, the threat of competition, may also have been a reason for its demise. When the alternative delivery structure emerged as a legislative proposal, institutional administrators and faculty made their positions known. Some perceived the alternative delivery structure not as a response to outside competition, but as a potential new competitor within the state system. Others, particularly the University of Minnesota, recognized the need to compete with new providers, but questioned the ability of this proposed structure to help Minnesota institutions compete in a global educational market.

Ultimately, a lack of support from campus administrators contributed in part to the alternative delivery proposal's failure. Faculty did not directly oppose the bill in a formal way because they simply were not organized around this issue. Institutional administrators, primarily from the University of Minnesota and the new system of state colleges and universities, strongly opposed the bill. Without the support of these key players, the proposal never gathered enough momentum to overcome the political and budgetary obstacles it faced. In addition, uncertainty over changes in the state's postsecondary governance structure, which were implemented in July 1995, contributed to the political climate in which the bill was rejected.

After statewide policy discussion and the bill's stalemate in the legislature, distance education and curricular development remained at the campus level. In other words, it remained with existing competitors within the system. The bill's lack of support is consistent with

Schweiger's analysis of open and distance learning worldwide. He suggests that most successful distance learning operations exist outside traditional higher education systems; those that attempt to enter traditional higher education systems are usually "choked off" by existing institutions (1995). Although this policy was not adopted, it represents an attempt at comprehensive state policy for distance education. In addition, Minnesota's previous policy approaches had developed the Minnesota Learning Network and a multisector telecommunications council to carry out statewide policies concerning distance education.

Ironically, the institutions that so vehemently opposed the alternative delivery structure in 1995 came together in 1997 to support a similar initiative: the "Virtual U Minnesota." The University of Minnesota, MnSCU, and the Private College Council joined forces with the state office of technology and private industry to "provide better access to the state's higher education resources" and also to provide a mechanism for professors and departments to market their courses and programs globally (Emerson, 1997, p. 16). Essentially, the Virtual U would operate as a "web front door" into the electronic resources from all the campuses. Plans include course development and delivery within Minnesota, a credit bank, and eventually exportation of curriculum out of state. The legislature provided \$800,000 in seed money in 1996, and the group is seeking \$3 million to begin "piloting" the concept in 1997 (Emerson, 1997). In contrast to the alternative delivery structure proposal, the Virtual U Minnesota does not intend to operate as a separate entity and will not award degrees. In addition, the Higher Education Services Office (formerly MHECB), will not play a prominent role. According to Joe Graba, however, the central office still exerts considerable influence in the area of statewide technology planning. With the abolition of MHECB in 1995, the legislature stripped the office of virtually all planning functions, with the exception of technology. The slimmed down agency still serves as the fiscal agent and provides staffing for the statewide Telecommunications Council, and has made significant progress with a statewide electronic library initiative (Graba, personal communication, 1997).

The Maine Case Study

In 1985 Maine was ranked 49th among states in the number of high-school graduates going to college and 50th in the number of adults enrolling in any form of higher education. The University of Maine System (UMS), a governing board, decided at that time to address the problem of delivering higher education to isolated regions of the state. The Edu-

cation Network of Maine (EdNet) was officially inaugurated in September 1989 (University of Maine at Augusta, 1989, 1992). Today the Education Network delivers credit-bearing courses leading to associate's, bachelor's, and master's degrees to more than 3,000 students in over 100 Maine locations each semester.

Maine's strategy for delivering distance education initially was to designate a lead institution, the University of Maine at Augusta (UMA), to direct and administer the Education Network (Wagner, 1994). However, a number of important subsequent decisions made by the University of Maine System Board of Trustees caused considerable controversy within the state. First was the separation of EdNet from the University of Maine at Augusta in May 1994. The other six campuses within the system were not using the network to its full potential, in part because of its affiliation with the Augusta campus. System officials and board members wanted to encourage other campuses to utilize the network. Therefore, the board of trustees separated EdNet from Augusta and designated it as an independent, free-standing entity within the University of Maine System. The decision to separate EdNet from Augusta represented one step toward greater centralization of postsecondary distance education.

In January 1995, the trustees took a giant leap, organizationally and politically, by authorizing the Education Network of Maine to grant degrees and seek independent regional accreditation. Following this decision, there were faculty protests by way of position papers, newspaper editorials, legislative testimony, and ultimately collective votes of "no confidence" in the chancellor from all seven campuses. On the other hand, distant students from all over the state voiced their support for accreditation and expansion of services provided by EdNet. In the end, the chancellor resigned and the board postponed its decision to seek accreditation. The political wounds suffered ran deep among all faculty, students, and administrators embroiled in the controversy. The following discussion explains in greater detail the board's decision and subsequent reactions and consequences.

Rationale for the Decision

Since the Education Network of Maine began its operations in 1989, the UMS Board of Trustees had looked for ways to better serve adult learners, especially those who would be unlikely to enroll on a traditional campus. Students enrolling in interactive television (ITV) courses originating from multiple campuses had been facing a tangled web of inconsistent administrative procedures. For example, in a concept paper, UMA President George Connick described a fictional remote student named "Amy" and the obstacles she faced in registering for four ITV

courses. Amy was required to make a total of 28 contacts by phone or mail to individuals in various academic departments, admissions offices, registrars offices, and financial aid offices on each of the four campuses (Connick, 1994). This report, "Educating Amy," prompted faculty and administrators involved with distance education to recognize that they needed to be more responsive to the needs of nontraditional students. One way EdNet had responded to this need was to create a Teleservice Center so that its remote students could "take care of business" without having to come to campus. Students dial a toll-free number, which connects them with experienced student services personnel, who respond to questions ranging from admissions to billing.

In part, it was this same desire to better serve the off-campus student that drove the board's decision for the Education Network of Maine to seek separate accreditation. In a set of recommendations to the UMS Board of Trustees, George Connick and his staff at EdNet outlined the rationale for such a move. The recommendations were spelled out in the document, "Education Network of Maine: Implementation of Phase II." In this document, the Education Network of Maine was defined not as a traditional provider of education, but as a facilitator, offering existing providers several vehicles for degree delivery. When two or more campuses collaborate to offer a degree program over EdNet, or if students want to build their own degrees from courses on various system campuses, several questions arise. First, which institution will grant the degree? Second, who will determine quality standards and ensure program effectiveness? In the "Phase II" document, Connick recommended as a next step that the Education Network of Maine be granted permission to seek accreditation so that it might solve some of these problems by offering consortial or joint degrees from the UMS campuses (ENM, 1995). On January 23, 1995, the Board of Trustees accepted the "Phase II" recommendations and granted permission for the Education Network of Maine to seek accreditation from the New England Association of Schools and Colleges (Price, 1995a).

Faculty Reactions

Faculty concerns centered around four issues: the rapid pace and process by which decisions about EdNet were being made, the organizational structure of EdNet, the quality of the Interactive Television (ITV) learning experience, and the technology employed by EdNet. Among the most impassioned protesters of the board's decision were faculty from the flagship campus in Orono, the University of Maine. Even prior to the decision to seek accreditation, faculty at Orono were uncomfortable with the speed of development of EdNet. On December 14, 1994 the

Orono faculty senate passed a resolution insisting on more faculty oversight of the Education Network of Maine. The resolution stated that EdNet presented unique problems because it lacked a permanent, tenured faculty and referred to the faculty role in EdNet as "the major issue currently facing higher education in Maine" (Hale, 1994). Faculty also asked the board to take no further action on EdNet until the faculty question was straightened out. In spite of this request, the board pressed ahead with their plan the following month.

Both the Orono and Augusta faculty assemblies prepared responses to the "Phase II" document and board decision. The Orono faculty's primary concerns dealt with the faculty role in ensuring quality programming on EdNet. Augusta faculty members were more concerned with process issues. Regarding organizational structure, the Augusta faculty criticized "the inordinate amount of power and resources being put into the hands of EdNet without serious consideration of the complementary role of campuses" (Faculty Assembly, 1995, p. 2). "Why," they asked, "must the Phase II recommendations stress competition and haste?" (Faculty Assembly, 1995, p. 1). They also expressed concern that "Phase II" failed to acknowledge Maine students as EdNet's first priority as opposed to new national and global markets. Augusta faculty members, having been the primary users of the system, were more critical of the decision process and the organizational structure of EdNet than they were of the learning experience and choice of technology.

Other faculty members expressed their concerns through the press. In a full-page editorial published by the *Bangor Daily News*, Robert Klose, assistant professor of Biological Science at University College, wrote:

What is so insidious about this project is that it has come upon us like a thief in the night. Or like a freight train. Unforgivably, there has been no invitation to the people of Maine to enter into the dialogue of need, appropriateness, and cost-effectiveness of ITV and EdNet. . . . What is saddest of all is that the reckless, rather than measured installation of this system shows the utmost contempt for the culture of the university . . . and that the real decisions about what will be taught, how it will be transmitted, and who will teach it, are being left to business people who may very well be involved in little more than empire-building (Klose, 1994).

Other faculty critics presented testimony at regular board meetings and at legislative hearings held in response to the controversy. At the January 23, 1995 UMS board meeting, a faculty member from the University of Southern Maine commented, "With EdNet and the Community College, you are buying a costly pig in a poke that falls short of expectations" (Hale, 1995, p. 1). In response to the systemwide faculty imbroglio, special legislative hearings were held in the months following the board's

January 1995 decision. Several faculty members presented testimony, "but it was the same faculty that went back to every legislative meeting," according to George Connick, "so it began to reverberate against them" (personal communication, 1995). Members of the legislature began to view these faculty protestors as self-serving.

Faculty reactions to the board's decision for EdNet to seek accreditation cannot be taken out of context from other decisions concerning distance education, such as the separation of EdNet from Augusta. The 1995 decision, however, when put in combination with the previous ones, and the absence of a faculty contract since 1991, became a flash point for faculty criticism and public debate.

Student and Citizen Support

As the bickering went on, many students stood by watching their educational dreams tossed around like a political football. Some were not content to sit on the sidelines. From the islands, valleys, backwoods, and far reaches of the state came letters to the faculty senates, legislators, and newspapers. For example, Ida W. Page, a student at the Ellsworth Center, wrote to the *Ellsworth American*:

I am a student of ITV at the Ellsworth Center of the University of Maine at Augusta, and am tired of people judging the best way for me to obtain my education. I, as a single parent, raised three children in Ellsworth and they have all attended college. Now it is my turn to get an education. . . . The Orono faculty would have you believe I am not getting a quality education; I disagree. They would have you believe I am not capable of getting knowledge without the professor seeing the color of my eyes (Page, 1995).

Mark F. Wamsley, a student at the East Sullivan/Winter Harbor site, delivered a presentation to the Orono faculty senate, in which he stated:

To start, I take offense to all the recent negative publicity which paints the image of distance learners as "unmotivated" students and the ITV courses as a passive way to learn. . . . I have had the opportunity to attend both on-campus classes and the ITV programs. I am a full-time employee, full-time parent of three small children, half-time student, active in the community, and, along with my wife who is a full-time student, full-time mother, part-time employee, we home school our children. This is not your typical "unmotivated individual." By no means am I trying to imply that I am better than any other distant learner, but that I am probably closer to a typical distant learner than a "traditional student" (Wamsley, 1995).

The students' message was unified and clear: they wanted critics of EdNet to understand that for nontraditional students who are highly motivated to learn, EdNet offers educational opportunities they otherwise would not be afforded.

Ordinary citizens, concerned by the actions of and reactions by members of the university community, weighed in on the debate. Their voices, much like the students, were resoundingly in favor of EdNet. To the general public, faculty protesters appeared arrogant and self-serving. For example, one citizen from Presque Isle said, "The real reason the University of Maine faculty are dead set against the introduction of ITV is the union can foresee that less faculty are going to be needed for a higher quality education product" (Underwood, 1995, p. 3B). Citizens around the state who had seen the benefits of EdNet in their communities offered little sympathy for the faculty protesters.

Despite their best efforts, the distant voices of students and citizens were faint compared to the shrill protests of faculty. Though they reaffirmed their support for EdNet and distance learning, the Board of Trustees would finally back off its decision for EdNet to seek separate accreditation.

Administrative Consequences

In the months following the board's decision in January 1995, tension between faculty and system administrators mounted. Adding impetus to the accreditation concern were three issues: (1) A merger of the University College in Bangor with two-year programs in Augusta to form a new Community College of Maine; (2) a perceived centralization of the system inferred from the Chancellor's remarks to the legislature on a common course catalog and "exit examinations"; and (3) the long-simmering lack of a faculty employment contract (Price, 1995b). The situation came to a head at the board's regular meeting on March 27, 1995. Faculty and traditional students from throughout the system formally presented resolutions of "no confidence" in UMS Chancellor J. Michael Orenduff. The board voted to strongly support the chancellor. However, by the first week in April he had decided to leave his office (Price, 1995b). On April 5, 1995, the board appointed former chancellor Robert L. Woodbury as interim chancellor. Woodbury had held the post from 1986 to 1993.

At its regular meeting on May 22, 1995, the board voted to "affirm its commitment to distance education" and reaffirmed the role of the Education Network of Maine (UMS, 1995, p. 1). At this meeting, the board also resolved that the Education Network of Maine was *not* authorized to grant degrees or to pursue accreditation "at this time" (UMS, 1995, p. 2). In July 1995, several months following his departure, Orenduff reflected,

I think what happened with the Board is they thought, and I thought that perhaps a change in the chancellor's office would deflate some of the rhetoric which was really kind of bizarre, and allow things to move forward. Interest-

ingly enough, after I resigned and they asked Bob [Woodbury] to come back and fill the position, the kind of vocal critics came to Bob and said "now we want to un-do all of this." The only thing they undid was the accreditation. So the same faculty are still mad that the thing is separate (personal communication, 1995).

Interim Chancellor Woodbury made clear that the EdNet issue would not go away. He indicated that the pace of EdNet's expansion might slow, but the ultimate direction would remain the same (Lazar, 1995).

Competitive Forces

Leaders within the university system, especially George Connick and J. Michael Orenduff, believed telecommunications would increasingly allow the outside world to compete with the University of Maine System. In other words, some educational entity would serve the residents of Maine who cannot or choose not to attend one of the seven traditional campuses. The choice for the University of Maine System, it was thought, was to provide those services or risk becoming a non-player in a rapidly changing educational market. When asked if the threat of competition had influenced his thinking on distance education, George Connick, president of EdNet, replied,

Yes. It isn't an abstract threat, it is a real threat. We are seeing the technologies change in this state to the point where it is going to be possible for anybody to be a provider, and the only way that the University of Maine System is going to survive is if it adds value to the educational enterprise. Part of the problem is that people have forgotten they are not in the campus business; they are in the education business. And what we are seeing is this massive effort to protect campuses, to protect my office, to protect where I work, to protect where I teach. The students, because they are older, have quickly caught on to what the issues are here. What the faculty furor has done is really begin to clarify what is at stake here and the faculty can't win that battle. They are absolutely not going to win it (personal communication, 1995).

J. Michael Orenduff, the embattled former chancellor, also felt strongly that students would have more choices in the future than what the University of Maine System could provide. In response to the same question posed to Connick, Orenduff replied,

I think that is the underlying issue for those in Maine and nationwide. . . . [Education] is going to be more consumer oriented. It is going to be available right in your home, and you are not going to have to pay higher fees. It probably will be cheaper, you won't have to look for parking places, and you won't have to put up with the bureaucracy of the university. We have approximately the same number of traditional students in higher education today as we did a half century ago — two or three million. The rest of the higher education students are not interested in all of the trappings that go with higher education. They just want the degree, they want the economic advantage,

and they want the knowledge. I think we are in for a revolution, and like most revolutions it's going to have to initially overcome the entrenched interest (personal communication, 1995).

Thus, according to Connick and Orenduff, significant changes are in store for higher education if it is to remain relevant and competitive in our society.

The policy steps taken by the University of Maine System on EdNet are of a new variety for statewide higher education governing boards. Although political mistakes may have been made in carrying out those steps, they represent not the old functions of protecting geographic territories of service but rather of breaking down geographic boundaries and bureaucratic obstacles faced by students. Competition, in the case of Maine, was an impetus both to expand and limit the scope of EdNet. Proponents of the system perceived EdNet as a competitive advantage in the national and global market for higher education. Existing competitors, acting as a cartel within the state system of higher education, perceived EdNet as a potential threat to their own competitive position in the statewide market for higher education.

In 1996 a Commission on Higher Education, created by the legislature, evaluated the overall purpose, programming, and financing of the Education Network of Maine. In its findings released in July 1996, the commission endorsed the work of EdNet but said it should not be treated as a separate campus or have the authority to grant degrees (Blumenstyk, 1996). Later that fall, a systemwide Task Force on Telecommunications and Technology contracted with independent consultants for a subsequent evaluation of EdNet. In January 1997 results of that evaluation were released. Among its recommendations were that EdNet remain structurally unaffiliated with any particular campus but that its administration be shifted to the UMS system office under the vice chancellor for academic affairs (Bates & Mingle, 1997). Compounding the uncertainty of EdNet's future was George Connick's announcement of his impending retirement in 1997. Administrators on the Augusta campus saw this uncertainty as an opportunity to attempt to regain control of EdNet and initially received support from the chancellor. But the task force report and objections from the other campuses argued against such a move. Thus, the controversy continues, and eventual fate of the Education Network of Maine is unknown at this writing.

The Colorado Case Study

In a state experiencing rapid economic and population growth in the mid-1990s, Colorado postsecondary institutions have been challenged to keep pace. In contrast to Maine, participation rates in Colorado postsec-

ondary education are high. At the time of the study, Colorado was ranked third among the 50 states in educational attainment (Colorado Department of Local Affairs, 1994). The percentage of high-school graduates who go on to college in Colorado rose from 39% to 43% between 1989 and 1993 (CCHE, 1995). Because this number does not account for students attending a private institution, going out of state, or delaying enrollment for one or more semesters, the participation rate is estimated to be much higher. In spite of strong participation rates, Colorado faces challenges similar to Maine and Minnesota in reaching rural communities. For several years, the state has utilized various forms of distance education to improve postsecondary access for those populations. Beginning in the 1970s and in some cases earlier, postsecondary institutions around the state were offering courses to students at a distance. State-level policymakers made several attempts in the early 1980s and early 1990s to coordinate the disparate activities that had sprung up around the state — activities ranging from videotape delivery to cable television to interactive video networks. A number of these programs were quite strong and prosperous, and administrators were reluctant to give up control in order to collaborate on statewide initiatives. Even legislative mandates proved unable to bring about institutional coordination of distance education. Instead, institutions continued operating independent distance education programs, and several grassroots organizations developed to improve cooperation.

The year 1995 was a watershed for distance education development in Colorado. In that year, three events stand out as the most critical for postsecondary distance education. First, the legislature established technology as one of five priority funding areas for higher education and appropriated \$2 million for that purpose. The Colorado Commission on Higher Education (CCHE), the statewide coordinating board, allocated the funds to institutions through a competitive grant process. Second, CCHE changed its long-standing policy on geographic service-area boundaries so that cash funded distance learning programs were free to compete throughout the state. This policy change represents the changing roles of statewide coordinating boards, influenced in part by changes in technology. CCHE commissioners and staff members recognized that certain policies were either outdated, over-burdensome, or irrelevant and took steps that would facilitate greater use of distance education in the state. Third, the legislature created a 12th community college, the Colorado Electronic Community College. It also appropriated nearly \$12 million in capital development funds to higher education technology projects, \$9 million of which went to the community college system primarily for a production and curriculum development center.

Colorado Electronic Community College

On March 20, 1995, legislators passed House Bill 95-1196 and authorized the creation of the Colorado Electronic Community College (CECC). The specific language in the legislation named the "Colorado Community College and Occupational Education System College" as a 12th community college in the state system (State of Colorado, 1995, p. 4). Perhaps to make the legislative process less controversial, the name Colorado Electronic Community College was not used in the legislation itself but only after the community college *system* had been given statutory authority to operate its own separate college. As Jerry Wartgow, president of the Colorado Community College System and CECC's architect, observed:

We managed to get legislation passed last session with very little controversy. I'm getting calls from people all over the country asking if they can get tapes of the testimony and asking what our legislative strategy was. People from Maine are asking us, "how did you manage to do this, and why weren't the institutions opposed to it?" I don't know if everyone was asleep at the switch or what, but we weren't. I went directly to the majority leader of the house and said, "here's what I want to do long-term." We just went for it (personal communication, 1995).

After legislative approval of the concept, Wartgow quickly began using the new name and began implementing his vision. The CECC concept was developed in collaboration with Jones Intercable, which operates Knowledge Online and other educational ventures. In cooperation with Jones and other partners, CECC initially will serve as an "umbrella" organization that will offer a full range of transferable general education curricula through a number of technologies, including cable television, to students in Colorado and the nation. Mary Beth Susman, CECC's president, said Jones found the partnership attractive because of some unique features of the Colorado community college system, such as a core transfer agreement with all four-year schools, common course descriptions, common course numbering, common course titles in the core, and common course syllabi.

In the fall of 1995 CECC began using the services of Mind Extension University to deliver curriculum to distance learners across the country who wished to complete an entire Associate of Arts or Associate of Science degree through this program. In its first semester on the air, CECC operated as follows: Jones made available CECC programming to its millions of cable customers throughout the United States and also provided admissions, billing, records, bookstore, and student advising support to CECC students. Faculty members from the 11 community colleges in Colorado were responsible for creating, managing, and

delivering the instructional services to CECC students (CECC, 1995). CECC's legislative authority does not give it accreditation, which would allow it to grant degrees. Therefore, Arapahoe Community College initially is serving as the transcripter and degree-grantor for CECC (Susman, personal communication, 1995). Mary Beth Susman explained:

What I am doing is sort of brokering the A.A. degree for the CECC student. They will have all the resources of the 11 community colleges for this degree. But we didn't want to develop a whole student services side to the college, that is just too expensive. But our students still need financial aid advising, placement advising, etc. So we asked the colleges who might be interested, and willing to be a loss leader just to be a part of the project (personal communication, 1995).

According to Jerry Wartgow, CECC eventually will seek its own accreditation. He stated that CECC will use Arapahoe "as an umbrella for credibility under which to build this." But at some point, "that credibility will have to move over to the Colorado Electronic Community College" (personal communication, 1995). As long as the institutions were cooperating, however, Wartgow did not see an immediate need to seek accreditation. In his words:

The great thing about the legislation for Colorado Electronic Community College is that we haven't had to use it for anything. It just sits there. But if a college starts balking, we'll just say, "okay, maybe we should just run it through Colorado Electronic Community College," then there will be more receptivity to change. In other words, we don't have to go begging (personal communication, 1995).

In September 1995 CECC offered five courses: psychology, English composition, ethics, sociology, and statistics (Mind Extension University, 1995, p. 106). A total of 60 students were registered from Colorado, California, New Jersey, Maryland, Oregon, Texas, Florida, and Hawaii (Susman, personal communication, 1995). CECC chose outstanding faculty members from the eleven campuses, each of whom had won teaching awards and had experience teaching at a distance, to teach the first five courses. In the spring of 1996, CECC offered eight courses to over 100 students.

When the legislature decided to create CECC, it also wanted to make sure faculty and other public and private users would be trained in the use of educational technology. Toward that end legislators appropriated \$8.7 million in capital development funds in 1995 to the community college system. The majority of those funds would be used to build a state-of-the-art curriculum production facility. The new facility, which opened in February 1997, is located at the Lowry Higher Education and Advanced Technology Training Center, which is the site of a closed Air

Force base undergoing conversion to civilian uses. The facility provides opportunities for faculty to produce their own curriculum products, such as, CD-ROM masters, video programs, and Internet curriculum (CECC, 1995). Jones Intercable will be a major leaseholder of the facility, producing income that will allow CECC to keep equipment current and operate training programs at the facility.

Competitive Forces

As stated earlier, distance education development in Colorado is long and complex. Historically, distance education lacked statewide coherence because of institutional resistance to centralization, existing competitive rivalries among institutions, and little policy direction from system governing boards or the coordinating board (CCHE).

Resistance to centralized authority. Previous attempts by policymakers to bring together institutions of higher education on distance education delivery had ended in frustration. Attempts by CCHE in 1981 and 1989 to organize a statewide structure for distance education were "sabotaged" by the institutions before they ever got off the ground (Grieder, personal communication, 1995). Part of the reason lies in the governance structure of the state, and past relationships between institutions and CCHE. A representative of the University of Colorado, who wished not to be identified, said institutions had purposely left CCHE out of the knowledge-loop on technology issues for fear that CCHE's involvement would result in regulation. Institutions, operating under separate governing boards, had developed sound distance education programs without state-level involvement and hesitated to give up ownership. However, in 1995 and 1996 institutions were beginning to build grassroots efforts to cooperate among themselves through institutional alliances known as Telecoop, the Colorado Learning Network, and the Higher Education Telecommunications Alliance (HETA).

Existing competitive rivalry. A result of institutional resistance to a statewide effort has been multiple delivery systems across the state. In addition to a compressed video network known as CIVICS, which spans the state, numerous educational and governmental bodies have developed network capacities that in many cases are duplicative. For example, in 1995, Colorado Mountain College was developing a compressed digital video network to connect all of its campuses at 13 sites. This network is separate from the community college system initiatives, though at some point the technologies should be able to interconnect. Norm Murray of the State Division of Telecommunications noted:

The state of Colorado at this time does not have any single authority in telecommunications. That is why you are seeing the CIVICS network and the

Northeast Alliance of the CLN, and the Colorado Mountain College network, and the state rural health network, and a host of others. These networks keep popping up, but there doesn't seem to be a central authority or direction (personal communication, 1995).

The state Telecommunications Advisory Commission (TAC), created by the legislature in 1989 to try and bring about coordination among user groups throughout the state, found vast duplication not only among higher education institutions, but in nearly 300 separate telecommunications projects ranging from education to health care to numerous state agencies. In January 1995, then Lieutenant Governor Sam Cassidy released a report and recommendations on the telecommunications infrastructure for the state. He noted the multitude of projects around the state:

Many of these are eminently worthy projects and others eventually will be seen as detrimental. While it is heartening to see in these efforts the determination to develop our telecommunications capabilities, chaotic planning and duplicative systems only increase the eventual cost to the end users (Cassidy, 1995).

The task force led by Cassidy recommended that users and communities band together to increase their bargaining power with the private sector and suggested a minimal role for state government in actually providing telecommunications services.

The new market entrant. The community college system, led by Jerry Wartgow, created the Colorado Electronic Community College in response to a perceived market need and a belief that if they did not meet that need, someone else would. At first there were some concerns among the existing 11 community colleges that the new college would be in competition with their existing distance learning programs. Mary Beth Susman explained:

There were some very rational concerns. Some of the colleges wondered if we were creating a 12th college that would be in competition with their programs. But first of all, we are not FTE funded, so our tuition will be higher. So we didn't threaten them in that way. Second, a large part of our market is going to be outside Colorado (personal communication, 1995).

There was recognition by some that higher education was becoming more competitive beyond the state borders and that Colorado institutions needed to prepare for that competition. Jerry Wartgow also shared this conviction. He noted that four-year institutions in Colorado were "dropping the ball" by letting institutions like the University of Phoenix take away their market share (personal communication, 1995). When asked whether the threat of competition had influenced his views on distance education, Wartgow replied:

I don't know if competition is the driving force, but I use it all the time to try and bring faculty and reluctant administrators around. It's not so much the threat of competition as it is meeting a market need. If we don't come around to meet that need, however, someone else will. Places like the University of Colorado at Boulder never have to worry. But I would be really worried if I were some of the other ones — that aren't CU Boulder — about competition in the future and about survivability (personal communication, 1995).

The threat of outside competition clearly was an important factor in the community college system's decision to create the Colorado Electronic Community College. Policymakers and educators in Colorado have developed and supported postsecondary distance education as a policy tool to extend access and to reach new markets. Although there was much distance education activity in Colorado in 1995, the community colleges were the only postsecondary institutions to bring about a statewide comprehensive program.

In yet another attempt to bring about statewide unity, legislators in 1996 passed Senate Bill 96-197 to create a statewide Technology Learning Committee (TLC). The committee, comprised of legislators and representatives from higher education, K-12 education, libraries, and state government, was charged with allocating \$20 million to improve training and technology infrastructure in schools, colleges, and libraries throughout the state. The Colorado Commission on Higher Education began to play a more prominent role in statewide planning for educational technology in 1996. In addition to launching its own strategic planning process, CCHE was assigned with fiscal and staffing responsibilities for the Technology Learning Committee, which sought an additional \$20 million in funding in 1997.

Findings and Policy Implications

At the time of this study, each state had introduced a significant policy initiative relating to distance education. Most importantly, each initiative laid the groundwork for an entirely new entity or delivery structure within the state. Minnesota's proposed alternative delivery structure, Maine's network separation and accreditation, and Colorado's electronic community college each stimulated debate within the policy and education communities. At the conclusion of the study, the Minnesota initiative had stagnated in the legislature, aspects of the Maine plan had been curtailed, and Colorado's initiative was just getting started. While these unprecedented policy initiatives did not reach complete resolution, they represent only part of the state distance education stories. Each new initiative was built upon active institution- and state-based distance educa-

tion programs, which had successfully served various student populations for many years. The three state approaches had several policy ramifications, which are discussed next.

Distance Education and Competition

The first research question of this study asked how the competitive environment in higher education had changed in each of the three states as a result of distance education. Distance education changed the competitive environment in Minnesota, Maine, and Colorado most distinctly by expanding the traditional markets of colleges and universities, and this expansion enabled campuses to better serve working adults and those geographically isolated from a campus. It can also be argued that an increasingly competitive and entrepreneurial environment in higher education, especially in the adult learning market, has itself prompted development of distance education programs. However, the causal direction of the forces is not as important for this study as the complex interactions between technology, competition, and higher education.

Classic business models can help explain this competitive environment. Kotler (1988) discusses the "marketing concept," which holds that "the key to achieving organizational goals consists in determining the needs and wants of target markets and delivering the desired satisfactions more effectively and efficiently than competitors" (p. 17). Kotler distinguishes the marketing concept from the "product concept," which holds that "consumers will favor those products that offer the most quality, performance, and features. Managers in these product-oriented organizations focus their energy on making good products" (p. 14). Table 1 contrasts the traditional higher education "product concept" against the higher education "marketing concept," which represents the direction in which some institutions and states are moving because of increased competition.

TABLE 1
The Higher Education Product and Marketing Concepts

Starting Point	Focus	Means	Ends
(a) Traditional Higher Education Product Concept			
Institution, faculty—————>	Teaching, Research—————>	Recruiting, promoting—————>	Enrollments through reputation, prestige
(b) The Higher Education Marketing Concept			
Student market—————>	Customer needs —————>	Coordinated marketing—————>	Enrollments through customer satisfaction

NOTE: Adapted from Kotler, 1988, p. 17.

Results from analysis of data presented in this article showed that each of the three states was at some stage of moving from an "institution" and "product" focus toward the marketing concept of a student/customer focus. Maine had advanced the most toward this concept through its student outreach activities, such as the teleservice center, the *Educating Amy* studies, and EdNet's market needs assessments. The Colorado Electronic Community College developed in response to a perceived market need, as did the proposal for an alternative delivery structure in Minnesota.

At the same time, there were forces working against the marketing concept. Three forces, in particular, weighed heavily against the new market forces: a focus on the "product" of higher education, existing competitive rivalries, and systemwide and state-level politics. In Maine, for example, faculty concerns over the quality of the "product" and internally focused questions of governance temporarily derailed plans to expand the Education Network of Maine. In Colorado, competitive rivalries among institutions precluded the development of a statewide focus on the needs of learners and consumers of postsecondary education. Such "turf" concerns in Minnesota combined with the threat of a new competitor ultimately staved off the proposed new alternative delivery structure.

Distance Education Structures

The second research question concerns which distance education structures are most suitable for helping a state meet its goals for access to postsecondary education. The answer can be explained by first examining a conceptual model for distance education delivery structures. In Zeller's (1995) distance education policy framework, four policy approaches to statewide distance education delivery are presented (see Table 2). Zeller categorizes statewide approaches along a policy-

TABLE 2

Properties and Policy Dimensions Related to the Four Models of Distance Education

Properties	Policy-Oriented Dimensions			
	Laissez-Faire	Consortia	Coord. Council	Comprehensive
Purpose	Single			Broad
Planning/Coordination	Local			State Level
Ownership/Control of the technical Capacity	Dispersed			Concentrated
Access/Clientele served	Narrow			Broad
Programming	Limited			Comprehensive
Role of institutions	Individual			Collaborative

NOTE: Adapted from Zeller, 1995, p. 126

oriented continuum ranging from "laissez-faire," where no state-level plan for distance education exists, to "comprehensive," where the state views distance education as an instrument of public policy to increase postsecondary participation. After data analysis, the three states in this study can be placed at several points along the continuum (see Table 3).

In Colorado the policy approach to distance education for four-year institutions was very close to "laissez-faire." However, recent actions by the four-year institutions, such as their participation in the Higher Education Telecommunications Alliance (HETA), suggest a modest move toward the "consortium" approach. Colorado community colleges, however, operate closer to the "comprehensive" end of the continuum. System-level policies, such as common course numbering and course descriptions, and articulation agreements allow the community college system to serve students statewide through distance education. Their ability to act as a unified system was one reason Jones Intercable entered into a joint venture with them to create the Colorado Electronic Community College.

Minnesota was judged to be at the "coordinating council" point on the continuum. The Minnesota legislature created the Telecommunications Council in 1993 for the expressed purpose of developing a statewide vision and plan for distance education, developing and implementing policy, distributing state funds to areas of state priority, and coordinating with all public sectors, including K-12 education. Through this council, Minnesota was able to connect the numerous distance education networks around the state into a regionally based Minnesota Learning

TABLE 3
Distance Education Policy Continuum

Laissez-Faire ←	Consortium	Coord. Council	Comprehensive →
Colorado 4-yrs	Minnesota	Colo CC's	Maine
No state-level comprehensive plan. Clientele is employed professionals, mostly graduate level. Institutions initiate distance education independent from one another.	Routine state level planning through Telecommunications Council. Various student populations served. Limited number of degrees offered. Institutions cooperate to a limited extent, mostly on technical rather than program issues.	Systemwide planning at community college board. Wide range of associate degrees offered. System designed for undergraduates seeking two-year degrees. Institutions cooperate in delivery of programming.	Planning, coordination, and delivery assigned to one entity. Institutions may also participate in the system. System designed to provide access to anyone who needs it. Range of associate's, bachelor's and master's degrees offered.

Note. Adapted from Zeller, 1995, pp. 128-130

Network. Had the proposal for a separate alternative delivery structure passed, Minnesota would have moved closer to the "comprehensive" approach on the continuum.

Maine fits very near to the "comprehensive" policy approach. The Education Network of Maine operates as a separate entity within the University of Maine System. At the time of this study it had no affiliation with any one of the seven universities in the system. Zeller (1995) and Schweiger (1995) argue that this "single entity" model enables the broadest range of student populations to be served in the most cost-effective manner. The driving issue for policymakers in creating the Education Network of Maine was to increase the level of participation in postsecondary education, especially in geographically isolated regions of the state. They have met that goal. At the end of 1995 the Education Network of Maine was serving students from the associate degree level through the master's degree level in over 120 locations.

The three states' policy approaches, however, left unanswered a critical question regarding access to postsecondary opportunities: who benefits and who pays? There appears to be a relationship between the policy approach to distance education and the student population group served. To simplify the argument, the state operating closer to the "laissez-faire" end of the continuum serves primarily those students of more affluent means. In Colorado, most distance education offered by four-year institutions serves professionals seeking continuing education. For example, the University of Colorado at Boulder's CATECS program offers graduate engineering courses primarily to students who are reimbursed by their employers. Similarly, Colorado State University's SURGE program serves graduate students in engineering and business. The University of Northern Colorado delivers continuing education for teachers. On the other hand, the two programs operating closer to the "comprehensive" end of the continuum serve less affluent student populations. The Education Network of Maine and the Colorado Electronic Community College serve students attempting to complete their first and second years of college. Because the A.A. degree is generally not financed by employers, the state subsidizes these programs with the expressed intention of raising the education levels and quality of life of its citizens. Thus, the underlying rationale for public investment in and coordination of distance education is that individual institutional and private sector solutions can lead to "cherry picking" the most attractive and profitable courses and programs, without regard to meeting public goals. This finding cannot be generalized beyond the three states in the study, but is consistent with Zeller's (1995) characterization of the four policy approaches. It is important to note that this study did not examine the

cost-effectiveness of the four policy approaches. While the comprehensive programs in this study received greater state subsidy, the total costs to support each type of program were not addressed and are outside the scope of this study.

Distance Education and Statewide Coordination

The third research question centers on the conflict between traditional principles of statewide coordination and the new values introduced by technology and distance education. A review of literature on statewide coordination shows a set of dominating principles since the late 1950s. Some of these principles included the following: prevention of unnecessary program duplication, maintenance of mission distinction, definition of geographic service areas, equitable distribution of resources, and systemwide planning (Glenny, 1959; Glenny, 1971; Berdahl, 1971; Millett, 1984).

Each of the three statewide distance education programs in some way challenged the traditional principles governing statewide coordination. In substitute for the old regulatory principles were newer "market-based" principles. Minnesota's proposal for an alternative delivery structure introduced new concepts like "partnering" for curriculum development and "marketing" curricular products beyond the state's borders. These ideas extend beyond the coordinating board's notable focus on curtailing institutional desires to expand their missions and programs. Additionally, the proposal for a Minnesota Credit Bank challenged institutions' historic control over degree requirements determined by "seat time." In Maine, the Education Network of Maine had conducted statewide needs assessments to determine programming that would be offered over the network. This market orientation stands in stark contrast with the traditional internal approach to program development, which begins with approvals at the departmental level and finally reaches the coordinating or governing board for review and approval. In addition, Maine had begun "importing" degree programs from outside the state to meet demands for programs that the in-state institutions would not or could not provide on the network. This concept runs counter to the old ideas of "protecting the turf" of local institutions. Similarly, Colorado relaxed its traditional service area boundaries for non-state-subsidized distance education programs so that all institutions could begin to compete statewide without artificial geographic constraints. Finally, Colorado set up a new funding system through which institutions compete for funds in areas the legislature designates as high priority. Although the base funds are still allocated through a formula, the new approach steps away from the "equal distribution" concept and

allows those institutions that are best meeting state needs to be rewarded. Table 4 illustrates some of these old principles of coordination gleaned from the literature contrasted with newer principles emerging from this study.

Conclusion

In the new competitive environment of higher education, the need for state coordination has changed, but not disappeared. In fact, one might argue that a public or quasi-public body that is concerned primarily with the "public purposes" of higher education is an even greater necessity in this age of entrepreneurship (Mingle & Epper, 1997). State boards, as in the past, will need to be advocates for the less powerful and affluent student populations.

This study illustrates that coordination and competition can and must coexist. Porter (1980) describes several ways in which competitors coordinate with one another to raise entry barriers in an industry (i.e., protect themselves from new competitors) and to achieve better bargaining position with suppliers. Similarly, state higher education institutions must coordinate in order to compete. It is difficult for institutions acting alone

TABLE 4
Principles of Statewide Coordination of Higher Education

Old (Regulation)	New (Competition)
<i>Role & Mission</i> based on program differentiation, geographic territory	<i>Role & Mission</i> based on institutional capacity, partnerships, market needs assessment
<i>Quality</i> assumptions based on inputs: selective admission, financial resources, faculty credentials, low student/faculty ratio, seat-time	<i>Quality</i> assumptions based on outputs: learning outcomes are measured through competency-based curricula; employer satisfaction
<i>Delivery Structure</i> campus-based	<i>Delivery Structure</i> home-based, community-based, includes broadband networks for video/multimedia
<i>Funding</i> based on: 1. equal treatment for mission and level 2. subsidizing institutions—bricks and mortar	<i>Funding</i> based on: 1. responsiveness to state and market needs 2. subsidizing students (vouchers) 3. strategic and focused goals
<i>Student Population</i> 18–24 year-olds	<i>Student Population</i> lifelong learners
<i>Institutional Goals</i> prestige and stability	<i>Institutional Goals</i> serve the market, competitive advantage
<i>Scope of Coordination</i> limited to traditional higher education institutions	<i>Scope of Coordination</i> cross-sector coordination, including business, K–12, libraries, other governmental agencies

to make the front-end investments required to provide a high-quality distance education product to a large number of students. In Colorado, for example, a lack of coordination among four-year institutions has produced a disaggregated collection of courses and specialized programs, mostly for employed students. The Colorado community college system, on the other hand, is well positioned to move as a system to meet emerging market opportunities. This result may have broad implications for governance in the future, pushing institutions toward consolidated systems or formal partnerships. Since this study was completed in 1996, a number of new partnerships and consortia have begun to take shape while existing ones have more deliberately focused their attention on technology and distance education. The most visible among these is the Western Governors University, created by a group of governors in the West to leverage their states' collective investments in distance education and make higher education more accessible to students throughout the region. Other alliances include a new focus on distance education by the 12 institutions that make up the Committee on Institutional Cooperation (CIC) and the Southeast Center for Advanced Technological Education (SCATE), comprising institutions in Texas, Oklahoma, and New Mexico (DeLoughry, 1995).

The broader implications of this research relate to the will of state policymakers to immediately invest public funds in postsecondary distance education. They are asking questions about the wisest investment strategies, the most effective organizational structures, ways to resolve conflicting policies, and other policy decisions. In short, there is a sense among policymakers of being "left behind" if they do not act quickly. As this study has shown, each of these policy decisions has profound implications and should not be made without careful consideration. This research also points to a healthy prognosis for the future of public higher education. States and institutions are responding to the new market demands, even if it is only at the periphery of many institutions. If institutions continue operating closer to the "marketing concept," then new competitors will face a formidable challenge from the well-established, though transformed system of public higher education.

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Connick, George P. *President, Education Network of Maine*. Personal Interview, May 30, 1995.

Fink, Joan R. *Director, Thomaston Center, University of Maine System*. Personal Interview, June 5, 1995.

Hurst, Frederick M. *Dean, Information Technologies & Telecommunications, Education Network of Maine*. Personal Interview, May 31, 1995.

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Book Reviews

The Idea of a University: John Henry Newman, edited by Frank M. Turner.
New Haven, CT: Yale University Press, 1996. 361+ pp. \$35.00 (\$18.00)

JOHN R. THELIN, University of Kentucky

Higher education moves to center stage in the discussion of civilization and institutions as the Yale University Press has re-issued Cardinal Newman's classic work, *The Idea of a University* for the lead title in its series, "Rethinking the Western Tradition." This volume brings together key sections from Newman's original lectures and publications spanning several years, circa 1852 to 1873. Editor Frank Turner has put Newman's selected works into historical and political context by including numerous interesting essays, references, and a glossary by contemporary scholars. The net effect of these lively, imaginative companion pieces is to transport contemporary readers to the setting and circumstances in which the original audience encountered Newman as the Rector of the new Catholic University in Dublin more than a century and a half ago.

Re-issuing a historic work is a risky venture. The editors have opened the door for a new generation to rediscover Newman — and, after reading, to reject his arguments. For all the celebration given to Newman's writings about the higher learning, there is little evidence that his ideas worked their way into the enduring fabric or structure of the modern university. Certainly his own experience as a university official demonstrated the gap between an idea and its implementation. Perhaps the ultimate question is not, Were Newman's ideas realized? but rather, What is the enduring significance of his ideas? The supplementary essays, especially Frank Turner's "Newman's University and Ours," devote extended energy and space to explaining Newman's importance despite his flaws. The ironic result is that the supplementary commentary becomes a strained, unconvincing justification. One concurs with the editor that Newman seems to be a "voice from an academic time warp" to readers in 1996 as well as to academics of the mid-nineteenth century, and one accepts the commentary that "Newman was out of touch with the major trends in the university world of his own time" (p. 284). Despite Newman's limits, the editor claims, "At their peril those concerned with modern university life — students, faculty, trustees, alumni, and parents — may ignore Newman's volume, but if they read it and think seriously about it, whether in agreement or disagreement, they cannot remain indifferent to what he wrote — unless they are fundamentally indifferent to higher education to begin with" (p. 286).

Although this bold claim kindles drama, its residual impact is to suggest hyperbole. It may be compelling to attract a reader, but not sufficient to retain or persuade one. Equally plausible is that Newman's ideas are overrated and that one could have a very healthy, complex, and worthwhile survey of debates over

the essence of higher education without having read Newman. Editor Turner is on dangerous historical ground when he writes, "Many university presidents, provosts, and deans continue to speak of universities as places where knowledge is pursued for its own sake, but the reality they seek to administer has become something quite different. The Universities now constitute one of the chief venues in Western society for the pursuit of useful and profitable knowledge" (p. 291). True, the enterprising dimension of the twentieth-century university may be a departure from nineteenth-century universities. However, to imply that a college or university in the eighteenth or nineteenth or even thirteenth century was, in fact, devoted to the pursuit of knowledge for its own sake is simplistic and inaccurate.

Newman may be praised for providing a "unifying vision" of the university — but his unity brings a high price of intolerance and limits. Even Turner notes that when Newman did construct academic freedom, he did so in an "awkward way" (p. 287). Newman's Roman Catholicism limits his vision of university inquiry. on the one hand, he talks about scholarship as "providing knowledge as an end in itself"; on the other hand, he insists that this pursuit was allowable only so long as it was within the ethos of Catholicism. Is there any wonder why such a proposition lacks widespread appeal today?

The editors of the Yale University Press place Newman in the company of such works as Matthew Arnold's *Culture and Anarchy*. For higher education readers the inclination is to compare Newman with other nineteenth-century college and university pioneers and reformers. For example, an intriguing counter-to Newman's insistence on grounding the modern university in denominational theology is Philip Lindsley's 1829 essays on the need for a nonsectarian American university.

The publisher has geared the book to multiple audiences, ranging from undergraduates to those members of the academic community involved in periodic rethinking of the mission and character of the university. Readers probably will be those who have been attracted to critiques and reforms over the past two decades by such authors as Paige Smith, Allen Bloom, and J. Irwin Thompson in their respective attempts to go back to the basics of institutional purpose. Less certain is the prospect that board members, university presidents, and provosts will take time to read or reread Newman. In sum, the editors' efforts to provide context often come across as excuses and apologies which tend to point out the limits, not the strengths, of Newman's analyses.

Marginal Worth: Teaching and the Academic Labor Market, by
Lionel S. Lewis. New Brunswick, NJ: Transaction Publishers,
1996. vii + 162 pp. \$29.95

ALAN E. BAYER, Virginia Polytechnic Institute and State University

Albeit one which will be grudgingly challenged by educational policy-makers, academic administrators, and dedicated teachers in academe, the thesis of this little volume is quite simple:

It is well understood that the pursuit of excellence and rewards in teaching is a fool's game. One must turn his or her attention to research or administrative chores if one is interested in following the smart money (p. 145).

Moreover, this is the way it will forever be:

Regardless of what efforts or seeming success faculty may have in the classroom, they cannot expect that the academic labor market will bring about conditions that will enhance their rewards (p. 155).

Sociologist Lionel Lewis adopts the economists' tools of a human capital perspective and the labor market model to reinforce his claims. But it is acknowledged at the outset that these tools imperfectly apply to the academy, and frequent subsequent digressions are made from the use of the lenses of these particular perspectives. Nevertheless, quantitative and qualitative evidence — some compelling, some selective and ambiguous — together with persuasive logical argument strongly advance the thesis.

In regard to the supply-demand relationship, there is an almost limitless supply of adequate teachers (chap. 5), whereas researchers have rarer skills and hence can command greater compensation (chap. 4). Moreover, good teaching lacks universal currency, and the practitioners can only build a local reputation. Good researchers enjoy broader reputation, competing in a national (or international) labor market and thereby commanding higher competitive salaries (chap. 3). Teaching is also viewed as rewarding in itself, and this intrinsic reward is generally sufficient to motivate teachers. Adding substantial extrinsic reward would not increase motivation, and hence substantial salary increases are unnecessary (chap. 11).

In contrast to assessing teacher performance, it is proposed that evaluating research performance is easy, and there are more objective standards that can be applied. Teaching cannot be effectively evaluated, teachers within a discipline are largely interchangeable, almost all are considered adequate, and most are characterized as above-average (the Lake Wobegone effect). Furthermore, college teaching is shown to have minimal impact on students, and what is learned is not learned most from "effective teachers." Therefore, "to reward faculty for shining in the classroom is to give them credit for what happenstance, popular culture, and nature have done" (p. 41).

As for teachers, it is asserted that there is also not much of an external labor market for administrators. Yet because administrators control institutional budgets, they have been able to subsidize the "bloat" in the number of academic administrators and to award themselves "princely" salaries (chap. 10). This persistent siphoning of financial resources causes academic budgets for rewarding efforts in teaching to grow meagerly.

The analyses for these arguments draw on some compelling national research and data. However, some conclusions will frustrate readers, because they are speculative or are drawn from obscure resources without accompanying bibliographic notation; for example, "One limited survey in 1992 reported. . ." and "One set of statistics shows. . ." (p. 139).

The data gathered especially for this volume may also disappoint the reader. No data include the teaching faculty at the 40% of American postsecondary in-

stitutions that are community colleges. Most of the data are from research and doctoral-granting institutions. Given the theme that teaching is not well rewarded across academe, it would be beneficial to concentrate more of the analytical lenses on primary teaching institutions, including liberal arts schools and community colleges.

One chapter (chap. 7) is based solely on data from a selection of letters on salary recommendations at a single public university. Both research performance and institutional service were found to be more strongly emphasized than teaching. Another chapter (chap. 6) identifies 150 incidents of formal grievances and then proceeds to carefully document 10 selected institutional incidents, 8 of which were university cases, to illustrate that teaching is rarely an issue in faculty-institutional conflict.

Another set of data compiled for this study (chap. 8) are letters of recommendation for three university positions and for one position in a liberal arts college. In the former, teaching qualities, if addressed at all, are a distant second to research skills. In the latter, there are almost universal superlative comments about teaching, and personality traits are highly emphasized. Finally, chapter 9 provides content analysis of 450 academic job listings for chemists. The qualitative assessment again concludes that teaching is only marginally emphasized in university recruitment advertisements, and teaching credentials, while highlighted in college ads, carry little weight relative to cooperativeness and affability in the actual hiring decision.

This volume is an antidote for highly publicized commissioned reports and fluff commentaries (and individual whining) calling for greater institutional attention to teaching and more appreciation and equitable remuneration for college teachers. It is also an incendiary and provocative work, inviting easy potshots at its sometimes weak (or absent) supporting evidence for its thesis as it applies across the spectrum of the academic community.

Promotion and Tenure: Community and Socialization in Academe,
by William G. Tierney and Estela Mara Bensimon. Albany:
State University of New York Press, 1996. 161 pp. \$49.50 (\$16.95)

BOB BOICE, State University of New York at Stony Brook

"Tenure," as these two prominent authors point out, "is the strongest example of a socializing mechanism for a new faculty" (pp. 36-37). So it is, Tierney and Bensimon argue convincingly, that a close examination of tenure experiences explains what keeps novice professors from surviving: They fail if they try to preserve their individuality, particularly if they are women or people of color.

This is a well-written, tightly organized, and unusually informative book about promotion and tenure. It also attempts to handle a surprisingly large array of topics for so brief a presentation. In most instances it succeeds.

Consider first the successes. For one thing, Tierney and Bensimon highlight three hundred interviews with faculty who were asked about the rules of the

tenure/promotion "game" at their campuses. The result of these interviews should be required reading for campus committees and administrators who interview, hire, and tenure nontraditional newcomers. For instance, though reports of overt sexism and discrimination were exceptional, more covert experiences were not. White male newcomers appeared more likely to arrive with offices, supports, and administrative welcomes in place. A white woman, in contrast, was more likely to begin without an office or computer; one African American woman reported having to find everything on her own, even the mail room.

Those same interview data also help demonstrate the astonishing inhumanity and inefficiency of customary interview practices (e.g., prospects for new faculty positions experience the usual series of interviews with individual faculty as running a gamut that tests for grace under pressure more than anything else). More specifically, Tierney and Bensimon use these reports of early experience to take customary promotion and tenure processes to task, notably the obsessive emphasis on publishing about traditional topics and in elite outlets: "The data show that typical junior faculty are socialized not to take intellectual risks and not to question assumptions, because doing this might impede their efforts to have their work published. Faculty members admitted they were socialized to meet norms that had little, if anything, to do with the protection or advancement of academic freedom" (p. 140).

There is also a third, more practical goal apparent in *Promotion and Tenure*. Tierney and Bensimon draw recommendations for improving the promotion and tenure process. Some of these are called strategies for "anticipatory socialization." Examples include having job candidates teach a class or at least talk to students; reminding senior faculty and deans of the messages they convey when they display reluctance to talk seriously with nontraditional candidates; encouraging candidates to ask questions about job requirements (while dropping traditional bargaining strategies that put women at a disadvantage); having search committees become aware of sexist actions during interviews; and assigning multiple mentors to each novice. Other recommendations are called strategies for organizational socialization: (a) formal mentoring with structured, systematic feedback to mentees; (b) teaching evaluations seen more as processes than as outcomes; (c) orientations presented as dialogues (cf. lectures); (d) roles as mentors embedded in evaluations of senior faculty; (e) priority for collaboration over individualism in research and scholarship; (f) time frames for specific steps in the promotion and tenure process (including recognition that socialization is an individual process where needs of newcomers change); and (g) plans for faculty development.

Through all this complexity, Tierney and Bensimon always provide clear links to earlier points and reminders of where the reader is in the plan. But even though their arguments are carefully crafted, I see limitations in their presentation. One of them is a distracting and confusing focus on critical postmodernism as the framework for their analysis. They describe it as a "radically different vision of academic community" (intellectual, existential, and political-strategic), as an analytic tool for understanding the oppressive acts of society, and as a means of seeing how ideology creates structure. But how can the reader figure what this critical theory actually does in practice? I could find no obvious clues. Instead, I ended up looking to see what apparent role it played

in drawing the strategies for change listed above. Every one of them, it seems to me, has already been demonstrated and/or suggested in published studies of new faculty — findings that, in effect, relied on little more than simple inductive empiricism to draw the same conclusions. So the lengthy aside to tout critical theory at the beginning of this book is unnecessary. Moreover, Tierney and Bensimon's investment in critical theory seems to have constrained them from mentioning the complementary findings of kindred researchers. Why does that narrowness matter? It omits parts of what could be an even broader, more useful picture of tenure experiences (e.g., some study settings suggest that nontraditional newcomers are especially likely to discourage mentoring), and it neglects information important to some of their most central conclusions (e.g., they assume that self-reports of new faculty about how hard and long they work are reliable and valid, despite published reports to the contrary).

On balance though, this is an important and useful book. Its critique of the usual promotion and tenure policies (e.g., they do little to protect faculty differences prior to tenure) is exceptionally innovative, well stated, and worth reading. Its crisp summary of the unreasonable, counterproductive challenges faced by nontraditional newcomers to the professoriate should appeal to busy readers — even to overscheduled new hires themselves. And its brave, unflinching depiction of how well tenure works, as seen in this closing quote, deserves more emulation among those of us who study new faculty and fear offending administrators who want only good news: "The consequences of the tenure system are that junior faculty and senior faculty members alike become mired in a bureaucracy that confounds dialogues of respect about individual or group difference, and sidesteps honest consideration of what constitutes the academic community" (p. 142).

Changing the Odds: Open Admissions and Life Chances of the Disadvantaged, by David E. Lavin and David Hyllegard.
New Haven, CT: Yale University Press, 1996. 244+ pp. \$35.00

WILLIAM E. SEDLACEK, University of Maryland, College Park

In the early part of this book Lavin and Hyllegard present a history of the open enrollment program of the City University of New York (CUNY) with perspectives on the educational, political, and social issues that influence this policy. This part also includes a discussion of the factors that led to the beginning of open enrollment in 1970. One of the unique features of the CUNY model was the development of separate pools for senior college and two-year college admissions; however, students could move between the senior and two-year colleges. Additionally, CUNY took responsibility to see that the students who started actually finished their programs. CUNY continued its policy of free tuition, which had been in place since the City College of New York (CCNY) was founded in the nineteenth century. The bulk of the book consists of the results of outcomes studies through 1975 of the 1970, 1971, and 1972 entrants. Sample

sizes and return rates were: 1970 — 13,525 — 43%; 1971 — 8,527 — 24%; 1972 — 12,725 — 36%. A survey distinguishing blacks and Hispanics from non-Hispanic whites and an additional follow-up of 5,000 people from the original cohorts was conducted in 1984. A weighting procedure was developed to adjust for nonresponse bias. Detailed data are presented in tables, and the results of ordinary least squares regression and logistic regression are discussed.

In chapter 2, titled "How Far Did They Go?" the authors concluded that whereas 56% of the open admissions entrants in senior colleges completed college, the figures were 61% for whites, 49% for blacks, and 39% for Hispanics. These results are similar to those experienced at most public universities. "Attainment rates" were lower for those who began at community colleges. Rates of students attending postgraduate programs were also presented; at all stages whites had higher attainment levels than minorities. The authors concluded, "The gap reflects education and other disadvantages that are perceived in society and . . . open admissions . . . could not entirely overcome them" (p. 70). Chapters 3 and 4 present information on labor market participation and the estimated dollar benefits of other open admissions policies by gender and ethnicity. Annual earnings benefits were estimated to be between 6% and 12%, with gains greater for minorities than for whites.

Chapter 5, "Quality of Work Experience," covers occupational areas and administrative power that was achieved by the cohorts. Research results showed that occupations were gender-linked and that whites and men achieved greater power than blacks and women. In chapters 6 and 7, on marriage and the formation of a college-educated class, the authors conclude that the open admissions policy helped break down limitations placed on marriage and families, particularly of minorities, and that students did develop civic and cultural orientations; however, the status of CUNY as a commuter institution as well as socioeconomic forces constrained the influence of college. Chapters 8 and 9 provide a discussion on the value of open admissions. Here the authors state that part-time enrollment due to reduction of financial aid hurts students, that institutions of higher education can and should try to influence high-school curricula, and that community colleges have a negative influence on educational attainment.

The primary audience for this book would be those readers who are looking for detailed data about the CUNY open admissions experience and for information on how they might apply the lessons to other institutions. Unfortunately, the lessons are all ones that many people assumed or expected. Open admission probably worked to some degree, but ethnic and gender differences remained in expected directions. The use of this book as a reference tool appears particularly valuable. The detail in some of the tables is unavailable elsewhere. However, I think the authors often went beyond their data in making cause-effect links and in interpreting their findings. There is no experiment here, for students were not randomly assigned to experimental or control conditions. So many preexisting variables may come into play that were not feasible to control. Therefore, the biggest problem I have with the book is the tendency of the authors to attempt far-reaching conclusions based on inadequate evidence. I also have problems with some of their terminology, such as "The Disadvantaged" in the title. Even "students with disadvantages" or "from disadvantaged backgrounds" would be preferable, although "nontraditional" or "diverse" would be less pejorative. Of additional concern is the age of the data. Appar-

ently the most recent data were collected in 1984, and it is unclear why the results were not available until 1996. However, the data from the 1970s are valuable in and of themselves; no other books cover these topics, and therefore Lavin and Hyllegard's work has a unique role in higher education. However, I would also recommend Astin (1993), *What Matters in College*; Weiss (1988), *Class Race and Gender in American Education*; or Wilson (1987), *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*.

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The Equity Equation: Fostering the Advancement of Women in the Sciences, Mathematics, and Engineering, edited by Cinda-Sue Davis, Angela B. Ginorio, Carol S. Hollenshead, Barbara B. Lazarus, Paula M. Rayman, and Associates. San Francisco: Jossey-Bass, 1996. 353 pp. \$36.95

SUE A. MAPLE, Indiana University School of Medicine

The topic of gender equity in mathematics, science, and engineering (termed the MSE fields) has been the topic of considerable attention from researchers and program directors in the past decade. Although women showed gains in their share of MSE careers in the seventies and early eighties, these increases leveled off in most areas well before women received demographic or occupational equality with men. Though many of the barriers to women's participation have been documented and recognized, they have not been eliminated. *The Equity Equation* emerged from a conference sponsored by the Cross University Research in Engineering and Science (CURIES) group on gender issues in May of 1994. It serves as both a fact book on the status of women's and girls' participation in the scientific disciplines and a blueprint for future research, practice, and policy development.

A main theme of this volume is that many of the remaining and formidable barriers to women's participation in MSE fields can only be addressed by altering the institutional systems and structures that women are entering. The book begins with an excellent discussion of the role of public policy in education and in supporting scientific research. The authors distinguish between well-intentioned policies that inadvertently result in the marginalization of their beneficiaries, providing them with access to essentially unchanged and often unfriendly organizations, and those policies that leverage internal cultural and structural transformation. Chapter 2 offers a summary of data on women's par-

ticipation in MSE careers. In addition to an apparent leveling off in women's increased participation, the author documents lower salaries, higher employment rates, and slower progress in advancement toward tenure for women. Chapters 3 through 7 provide a comprehensive review of the research on the MSE educational pipeline for women and girls from the K-12 years through graduate school. Data from various national sources is presented to illustrate the myths and realities of women's and girls' participation. In the context of K-12 education, the role of self-confidence, teacher behaviors, and schooling practices, such as same-sex classes, are discussed. We learn that in precollege mathematics achievement, the single most important factor for predicting selection and success in MSE majors, young women show some improvement relative to men. In science, however, the gap between boys and girls has narrowed only slightly. Research on the undergraduate college years suggests that higher education reinforces the gender gap in mathematics self-confidence, a factor that, independent of ability, is a strong predictor of MSE career choice. Mathematics self-confidence generally declines in college, and it declines more for women than men. Chapters 8 and 9 turn to exploration of the status of women in scientific and technical careers, where the highest professional attainments still generally elude women.

Chapters 2 through 9 will seem familiar to those active in research and program development in mathematics and science education. They discuss many of the data and research we have seen in previous reports (AAUW, 1992; Committee on Women and Science in Engineering, 1991; Dossey, Mullis, Lindquist, & Chambers, 1988; Dresselhaus, 1984; Lane, 1990; Mullis & Jenkins, 1990; McIlwee & Robinson, 1992; National Science Foundation, 1990; Oakes, 1990; Pearson & Fechter, 1994). Nevertheless, some valuable additions to the literature are also presented. There is a useful synthesis of the literature from the perspective of diversity. The summary of what we know about intervention programs and curricular reforms, albeit modest in comparison with literature documenting the problems, will also be helpful for those seeking to implement programmatic changes. Most importantly, the authors provide a thoughtful discussion of critical assumptions about the nature of graduate education in MSE fields. The current normative expectation that about half of the people admitted to graduate programs will be lost and program structures that imply that personal and professional roles conflict have especially detrimental effects on women. In addition, the often individualistic and competitive ethic of the MSE fields are potentially alienating to women. Chapter 10 summarizes the recommendations emerging from the CURIUS conference and reiterates the importance of effecting structural and cultural change in institutions in order to promote equity.

The main contribution of this book is its challenge to the current status of institutional practice and culture in the MSE disciplines. Although a large and important body of research has addressed individual factors such as women's course-taking patterns, attitudes and motivation, limiting the dialogue to individual factors is to tell only part of the story. The focus must be expanded beyond changing women to fit into existing institutional arrangements. We must apply what we have learned to the creation of new institutional structures and an MSE culture where both women and men can have satisfying careers. Indeed, in the face of the vast body of work outlined in this book, the reader can-

not help but be struck by the way that most institutions continue to proceed as usual.

The Equity Equation comes at a complex and challenging time for the MSE fields. Recent published reports have suggested that we may be producing more scientists than the labor market needs. This does not mean, however, that women's access to MSE careers has become a moot point. Despite potentially reduced professional opportunities, women deserve equal access to the full range of career choices. The opportunities and rewards available in these occupations are often greater than in more traditionally female fields. In addition, science and mathematics education will be increasingly important, regardless of gender, for all people in our increasingly technologically complex society.

The Equity Equation provides a solid synthesis of the research and dialogue surrounding women's participation in the MSE fields. It will be attractive to those individuals and institutions involved in programs and research aimed at establishing an MSE climate that welcomes girls and women.

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Manuscript Submission: Manuscripts, which should meet the criteria outlined in the Editorial Policy, should be mailed — in triplicate — to: Leonard L. Baird, Editor, *Journal of Higher Education*, Ohio State University Press, 1070 Carmack Road, Columbus, OH 43210.

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Classrooms as Communities

Exploring the Educational Character of Student Persistence

Introduction

The college classroom lies at the center of the educational activity structure of institutions of higher education; the educational encounters that occur therein are a major feature of student educational experience. Indeed, for students who commute to college, especially those who have multiple obligations outside the college, the classroom may be the only place where students and faculty meet, where education in the formal sense is experienced. For those students, in particular, the classroom is the crossroads where the social and the academic meet. If academic and social involvement or integration is to occur, it must occur in the classroom.

Seen in this light, it is surprising that the classroom has not played a more central role in current theories of student persistence (e.g., Bean, 1983; Cabrera, Castañeda, Nora, & Hengstler, 1992; Tinto, 1987). Though it is evident that classrooms matter, especially as they may shape academic integration, little has been done to explore *how* the experience of the classroom matters, how it comes, over time, to shape student persistence.¹ The same may be said of institutions of higher education. Though they have certainly not ignored the classroom, most have not seen it as the centerpiece of their efforts to promote student persistence, preferring instead to locate those efforts outside the classroom in the domain

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of student affairs. Therefore while it is the case that student experience outside classrooms have changed, their experience within them has not.

This article presents the results of a multimethod, quantitative and qualitative, study of the efforts of one college, Seattle Central Community College, to alter student classroom experience through the use of learning communities and the adoption of collaborative learning strategies. The study seeks to ascertain to what degree such strategies enhance student learning and persistence and, if so, how they do so. Beyond its obvious policy implications, the study provides the context for a series of reflections on the ways in which current theories of student persistence might be modified to account more directly for the role of classroom experience in the process of both student learning and persistence.

Literature Review

We know that involvement matters. As numerous researchers have pointed out (e.g., Astin, 1984; Mallette & Cabrera, 1991; Nora, 1987; Pascarella & Terenzini, 1980; Terenzini & Pascarella, 1977) the greater students' involvement or integration in the life of the college the greater the likelihood that they will persist. We also know that involvement influences learning (e.g., Astin, 1984, 1993; Friedlander, 1980; Parker & Schmidt, 1982; Ory & Braskamp, 1988; Pascarella & Terenzini, 1991). Generally speaking, the greater students' involvement in the life of the college, especially its academic life, the greater their acquisition of knowledge and development of skills. This is particularly true of student contact with faculty. That engagement, both inside and outside the classroom, appears to be especially important to student development (Endo & Harpel, 1982; Astin, 1993). Even among those who persist, students who report higher levels of contact with peers and faculty also demonstrate higher levels of learning gain over the course of their stay in college (Endo & Harpel, 1982). In other words, high levels of involvement prove to be an independent predictor of learning gain. The same conclusion follows from the growing body of research on the quality of student effort; namely, that there is a direct relationship between the quality of student effort and the extent of student learning (e.g., Pace, 1984; Ory & Braskamp, 1988; Kaufman & Creamer, 1991). Quite simply, the more students invest in learning activities, that is, the higher their level of effort, the more students learn.²

What we do not yet know, or at least have not yet adequately documented, is *how* involvement is shaped within the context of differing institutions of higher education by student educational experiences. And though we have a sense of why involvement or integration should matter (e.g., that it comes to shape individual commitments), we have yet to explore the critical linkages between involvement in classrooms, student

learning, and persistence. In effect, we have yet to fully understand the educational character of persistence in higher education.

This is not to say that researchers have ignored the classroom experience. Quite the opposite is the case. In their reviews of the research on college teaching and student learning, for instance, McKeachie (1970, 1994) and Smith (1980, 1983) document the many studies that have sought to disentangle the multiple relationships between teacher behaviors and student participation in classroom discussion and learning. But those and other studies aside, the case remains that there is little empirical data on the impact of faculty members' behavior on student participation (Auster & MacRone, 1994). What we do know is that students' participation in college classrooms is relatively passive, that "learning appears to be a 'spectator sport' in which faculty talk dominates" (Fischer & Grant, 1983) and where there are few active student participants (Smith, 1983; Karp & Yoels, 1976; Nunn, 1996). Interestingly, both Fassinger (1995) and Nunn (1996) find that classroom traits, specifically a supportive atmosphere, is as important to student participation as are student and faculty traits.

The recognition of the importance of classroom environment is part of another area of inquiry, namely the role of classroom context, its educational activities and normative orientations, in student learning. Rather than focus on the behaviors of faculty, a number of researchers have focused on the role of pedagogy (e.g., Karplus, 1974; Lawson & Snitgen, 1982; McMillan, 1987) and, in turn, curriculum (e.g., Dressel & Mayhew, 1954; Forrest, 1982) and classroom activities (e.g., Volkwein, King, & Terenzini, 1986) as predictors of student learning. Generally speaking, these have led to a growing recognition that student learning is enhanced when students are actively involved in learning and when they are placed in situations in which they have to share learning in some positive, connected manner (Astin, 1987).

The issue, then, is not that researchers have ignored the classroom. Clearly they have not. Rather it is that the work they have done has yet to be connected to that in the field of student persistence. The two fields of inquiry have gone on in parallel without crossing. This study represents a beginning effort to bridge that gap.

Background

Though it is apparent that the college classroom is, for many if not most students, the only place where involvement may arise, it remains the case that most college classrooms are less than involving. At the same time, students continue to take courses as detached, individual units, one course separated from another in both content and peer group, one set of understandings unrelated in any intentional fashion, to what is

learned in another setting. There are however a growing number of exceptions. A range of institutions, both two- and four-year, have sought to redefine students' learning experience by restructuring the classroom, altering faculty practice, and linking courses one to another so that students encounter learning as a shared rather than isolated experience. One of these institutions, Seattle Central Community College, and its Coordinated Studies Program is the object of this study.

Coordinated Studies Programs at Seattle Central Community College

The Coordinated Studies Program (CSP) provides students the opportunity to share the curriculum and learn together.³ Rather than enroll in separate stand alone courses, students in the CSP enroll together in several courses that are tied together by a unifying theme. The theme of the CSP, defined by its title (e.g., Ways of Knowing, Of Body and Mind), crosses disciplinary areas usually in the Humanities Division, but may extend to the Math-Science or Professional-Technical Divisions. During a quarter, CSPs meet for a total of 11 to 18 hours each week in four- to six-hour blocks over two to four days. Generally all instructors are present and active in all class meetings. In addition to sharing the curriculum, students are required to share the experience of learning. They participate in cooperative learning activities that call for them to be interdependent learners (e.g., the learning of the group depends on the learning of each member of the group). In this way, students experience a form of interdisciplinary learning that requires active involvement with their peers.

Methodology

The research project sought to answer two basic questions regarding the program. First, does the program make a difference? Second, if it does, how does it do so? To answer these questions, we used two forms of inquiry, survey (longitudinal panel) and qualitative case study, to study the experiences of a sample of first-year students. Though conducted separately, the two forms of inquiry were linked by a common concern, namely to understand not only what students experienced, but also how those experiences were associated over time with their behaviors and changing views of learning and their subsequent persistence. In this very important manner, the methods were complementary to one another, each yielding information that together provided a richer sense of the impact of program participation than any one method could provide on its own.

In this regard it is important for the reader to understand that as a collaborative research team we sought to uncover those findings that over-

lapped, that together provided deeper insight into the impacts of the program we studied. Therefore, although it is possible to see and report the study as two separate studies, one qualitative, one quantitative, we did not view, nor will we report, our collaborative work in that manner. Though we will describe our work in separate sections, the reader should understand our work as representing two dimensions of a larger, multidimensional study. Given space limitations, this will lead us to provide less information about each method than some readers might prefer. Readers are therefore urged to read the larger research reports from which this article is drawn for more complete details about our methods, sample, and analyses (Tinto & Russo, 1993).

Longitudinal Panel Study

Sampling. We sampled first-year students in both the Coordinated Studies Program and in the traditional curriculum. We did so by first selecting a sample of CSP and comparison classes and then sampling all students in those classes. We did so not only because classrooms served as logical units of analysis, but also because that procedure greatly simplified the task of reaching students.

We selected a total of four CSP classes in the Liberal Arts Division of the College and eleven comparison classes that, in the view of the program staff, best captured a representative sampling of first-year students enrolled in similar subjects but not enrolled in the CSP. Our selection of CSP classes was such that it captured a range of students, some of whom chose to enroll in the program because they had few other options or enrolled in the program for reasons that had little to do with the pedagogical character of the course. The significance of this fact is that it enables us to test for possible self-selection artifacts.⁴

Data collection. Questionnaires were administered in the beginning of the fall quarter and later at the end of that quarter. The first questionnaire collected information on a range of student attributes, prior education, current life situations (e.g., family and work responsibilities), educational intentions, learning preferences, perceptions of ability, and attitudes regarding education. The second questionnaire collected information on current life situations, a range of classroom and out-of-classroom activities, estimates of learning gains, perceptions of the institution, and expectations regarding subsequent enrollment.

Measures of student engagement in classroom and out-of-classroom behaviors were derived from Pace's (1984) Quality of Student Effort Scales. Rather than being adopted in its entirety, Pace's items were modified to suit the specific context of the institution and program being studied. While ruling out comparisons with prior research, the modifica-

tions allowed us to better capture both the intent and impact of program participation upon student behaviors.

The first questionnaire was administered during the second week of the fall quarter by the faculty of the selected classes. Only beginning students were included in the survey administration. We obtained a total of 517 usable questionnaires, 210 and 307 from the CSP and the comparison classes respectively. The second, follow-up, questionnaire was administered during the last two weeks of the fall quarter. Again the questionnaires were distributed in class by the respective faculty. In this instance, students who returned completed questionnaires became eligible for a drawing for a gift certificate to be used in the bookstore. A total of two \$50 gift certificates were awarded by blind drawing. Of the 517 students who responded to the first questionnaire, we obtained a total of 287 usable responses (55.5 percent) to the second questionnaire; 121 from program students (57.6 percent) and 166 (53.5 percent) from students in the comparison group.⁵

In the following fall, information was obtained from institutional records about students' earned credits, grade point averages, and quarter to quarter enrollments (winter, spring, and fall of the following academic year). These data, together with students' estimates of learning gains, formed the outcome variable set. Estimates of learning gains, grade point averages and subsequent persistence, in that order, were seen to represent temporarily ordered outcomes that followed from college activities.

The final panel utilized in this study consisted of only those persons who responded to both questionnaires. The resulting panel therefore consisted of 121 program and 166 comparison group students for a total panel sample of 287 students. Comparisons of the attributes of program and comparison group students is provided below in Table 1. All analyses were carried out on this panel of students.⁶

Data Analysis. Several forms of quantitative analysis were carried out. First, descriptive statistics were employed to describe and compare the

TABLE 1
Characteristics of Program and Comparison Group Students

Characteristics	Program Group	Comparison Group
Age (mean years)	20.5	21.7
Gender (% female)	52.6	51.1
Marital status (% married)	2.5	11.5
Employment status (% working)	74.2	67.7
Parental education (% some college or more)	73.1	69.8
High-School GPA (A = 4.0; B = 3.0; etc.)	3.2	3.5

attributes, experiences, and outcomes of students in the program and comparison panels. Z-tests of difference between proportions were used to assess the presence of statistical significance. Second, regression analyses were used to ascertain how attributes and experiences were related, over time, to behaviors and, in turn, to outcomes over the course of the year. Since persistence was measured by a simple dichotomous variable, we used logit regression analysis in the study of persistence into the second year. Stepwise procedures were employed with variables added to the analysis according to a conceptual ordering system that places variables in order of their time occurrence.⁷ In all instances, SAS, a statistical package for the mainframe, was employed in the statistical analyses.

Qualitative Case Study

The intent of the qualitative component of the study was to understand, from the students' point of view, how participation in a collaborative learning program influenced students' learning experiences and how those learning experiences fit in with their broader experiences as first-year students. In this case, we focused exclusively on the views of students in the CSP classes. In those classes, students were selected to be interviewed using a purposeful sampling (Bogdan & Biklen, 1992). Our sampling plan included talking to students who were diverse in many ways — age, gender, race, and attitude about the program.

Data collection. We visited each site for three one-week periods during the academic year. The first site visit took place during the early part of the fall quarter. It allowed us to become familiar with the institution. In addition we were able to see how the collaborative learning program was functioning at an early stage. The second site visit took place during the late part of the fall quarter. The program was ending, and the students were able to tell us about their experiences during the quarter. The third site visit was made during the middle of the spring quarter. At that time students were able to reflect upon experiences with and without the program.

Data collection consisted of participant observation, interviews, and document review. Participant observation was conducted in and around classrooms, and on campus and in the surrounding community, wherever possible. Interviews consisted of numerous informal conversations with students, faculty, and staff; over forty-five scheduled open-ended interviews with students and staff; approximately twenty informal telephone interviews with key informants; and thirty-six scheduled interviews with students which followed a semistructured protocol. These latter interviews lasted an average of forty minutes. Document review consisted of gathering school publications and class materials, course syllabi, and schedules.

Data analysis. Data analysis was conducted in an ongoing process that enabled us to explore themes as they emerged and to pursue unexpected leads during the second and third site visits. Data were analyzed by reading and rereading field notes and interview transcripts to familiarize ourselves with them, assigning codes to portions of the data, identifying emerging themes in the data, and generating working hypotheses based on these themes. The working hypotheses were checked against the data and modified, as necessary, before being presented as findings. This process of incorporating emerging themes from the data with hypotheses constructed during the study is characteristic of inductive analysis used in qualitative research (Bogdan & Biklen, 1992). The strength of inductive analysis is that it facilitates the "grounding" of new models or theories (Glaser & Strauss, 1967). To make the mechanical aspects of data analysis more manageable (retrieving and sorting the coded data), we used QUALOG, a qualitative data analysis program for the computer (Shelly & Sibert, 1987).

Results

Longitudinal Panel Study

Patterns of activity and perceptions. In response to survey questions that probed the range and extent of student activities, CSP students reported greater involvement in a range of academic and social activities and greater perceived developmental gains over the course of the year than did students in the comparison classes of the regular curriculum. These differences are reported in factor form in Table 2. Noticeably, the two largest differences between program and nonprogram students are in course and student activities (3.05% and 3.12% versus 2.46% and

TABLE 2
Activity Factor Scores for First-Year Students in CSP and Comparison Classes

Factor Score	CSP	Comparison
Course	3.05*	2.46
Library	2.15*	1.94
Faculty	2.25*	1.99
Students	2.81*	2.25
Writing	3.12*	2.85
Clubs	1.70	1.57
Arts	1.91*	1.60
Perceived gain	2.68*	2.46

NOTE: Variables are measured on a four-point scale from 1 to 4. For activity scores these range from 1 = Never to 4 = Very Often. For perceived gains, they range from 1 = very little to 4 = very much.

* Indicates a significant difference between groups at the 0.05 level.

2.85%). In both cases, students in the CSPs reported being substantially more involved in course (academic) activities and activities involving other students than did students in comparison non-CSP classes.

It is noteworthy that in response to a series of semantic differential questions on college and classroom environment, students in the CSPs also reported significantly more positive views of the college, its students and faculty, its classes and climate, and of their own involvement in the college (Table 3). This was particularly noticeable with student perceptions of their classes (6.03% versus 5.16%) and their own sense of involvement in learning (5.80% versus 5.01%). As we shall see, these differences were reflected in the way students talked about their classroom experiences.

Given these data, it is not surprising that students in the CSPs persisted to the following spring and fall quarters at a significantly higher rate than did similar students in the regular classes (Table 4). Interestingly, differences in persistence in the following fall quarter (66.7% versus 52.0% percent) were considerably greater than those for the spring quarter of that academic year (83.8% versus 80.9%). They were greater still when transfer to four-year institutions was included in our measure of persistence, that is, when we took account of the total rate of educational continuation of students.⁸

TABLE 3
Perceptions of College Environment of CSP and Comparison Class Students

Perceptions of:	CSP	Comparison
Classes	6.03*	5.16
Other students	5.64*	5.19
Faculty	6.00*	5.62
Administrators	4.86*	4.54
Campus climate	5.31*	5.17
Yourself	5.80*	5.01

NOTE: Variables are scored on a scale from 1 to 7, where higher scores indicate a more positive view of college environment. In each case a score of 4 represents a neutral response.

*Indicates a significant difference between groups at the 0.05 level.

TABLE 4
Spring and Fall Re-enrollment among First-year CSP and Comparison Class Students

Student Population	Spring Persistence	Fall Persistence
Coordinated studies program ($N = 121$)	83.8*	66.7*
Comparison classes ($N = 166$)	80.9	52.0

*Indicates a significant difference at the 0.05 level.

Multivariate analysis. Though informative, the above descriptive analysis does not demonstrate that participation in the CSP classes is independently associated with enhanced persistence. It merely suggests an association that is univariate in character. To test the question of independent association we carried out a step-wise logit regression analysis that sought to predict second-year persistence as a function of the independent and treatment variables. Table 5 indicates the variables used in each of the multivariate analyses. Logit regression was utilized because the dependent variable, persistence, is a categorical variable (1,0). One interprets parameters in a logistic regression as specifying how changes in an independent variable increases or decreases the likelihood of persisting onto the second year. The results of these analyses are presented in Table 6. Only those variables are shown that are significant at the 0.10 level.

Five variables proved to be significant predictors of persistence among students at Seattle Central Community College. These are participation in the CSP, college grade point average, hours studied per week, perceptions of faculty, and the factor score on involvement with other students. Again, being a member of a CSP proves, even after controlling for performance and other attributes and behaviors of students, an inde-

TABLE 5

Variables in a Multivariate Analysis of Persistence at Seattle Central Community College

AGE	= age.
MAR	= marital status.
HSGPA	= high-school grade point average.
WORK	= working while attending college.
AID	= receiving financial aid.
MED	= mother's educational level.
FED	= father's educational level.
HDEG	= degree aspiration.
HSTUDY	= hours per week studying.
COURSE	= course activity factor score.
FACULTY	= faculty activity factor score.
STUDENT	= student activity factor score.
WRITING	= writing activity factor score.
LIBRARY	= library activity factor score.
CLUBS	= involvement in clubs activity factor score.
ARTS	= involvement in arts activity score.
ENVIRON1	= perceptions of other students.
ENVIRON2	= perceptions of faculty.
ENVIRON3	= perceptions of administrators.
ENVIRON4	= perceptions of classes.
ENVIRON5	= perceptions of campus climate.
ENVIRON6	= perceptions of oneself.
GAIN	= perceptions of intellectual gain.
GPA	= college grade point average.

TABLE 6

Logistic Regression Analysis on Persistence among CSP and Comparison Class Students

Variable	Parameter Estimate	Standard Error	Wald Chi-Square	P > Chi-Square
CSP	1.557	0.539	8.331	0.004
GPA	0.753	0.361	6.482	0.038
HSTUDY	0.279	0.167	2.802	0.094
STUDENT	0.957	0.345	7.681	0.006
ENVIRON1	0.472	0.239	3.869	0.050

NOTE: CSP = participation in CSP
 GPA = mean grade point average in college.
 HSTUDY = hours studying per week.
 STUDENT = student activities factor score.
 ENVIRON1 = perceptions of students.

pendent predictor of persistence into the second year of college. It should be noted that similar and even more powerful results were obtained when the rate of total educational continuation was taken as the dependent variable.

Qualitative Case Study

While the quantitative analyses yielded evidence of the impact of learning communities on student persistence and suggested some possible ways of understanding that impact, the qualitative analysis provided direct insight in the ways in which those communities influenced persistence. The results of this analysis can best be summarized under three headings, each of which reveals something about the underlying forces that link classroom experiences to persistence. These are Building Supportive Peer Groups, Shared Learning-Bridging the Academic-Social Divide, and Gaining a Voice in the Construction of Knowledge.

Building supportive peer groups. Participation in a first-year learning community enabled students to develop a network of supportive peers that helped students make the transition to college and integrate them into a community of peers. This community of peers, formed in their learning communities, provided students with a small, knowable group of fellow students with whom early friendships were formed. Some friendships lasted; others faded. But in all cases students saw those associations as an important and valued part of their first-year experience.

Meeting people and making friends during the first year of college is a major preoccupation of student life, especially among younger students who have yet to establish families or acquire significant work obligations. Whereas making friends in smaller, more intimate residential colleges may be a relatively easy task, it is far more difficult in com-

muter institutions and in very large institutions. It is not surprising then that so many students talked of their learning communities as a place to meet new people and make new friendships; a way to make the large college a smaller, more knowable place. A student in the program put it this way: "That's why the cluster is really great, because right now I've made a lot of friends. In another school if I had different classmates, it would have been harder. I've made a lot of friends that I didn't know before, so that's good."

Not surprisingly, many students saw participation in the learning community as an important part of being able to manage the many struggles they faced in getting to and participating in class (see Russo, 1995). Through seminars, group projects, class discussions, and self-evaluation reports, the CSPs contributed not only to a high level of student participation in learning, but also to the development of supportive peer groups that helped students balance the many struggles they faced in attending college. The groups, which developed within the classroom, extended beyond it providing support that students saw as influencing their desire to continue college despite the many challenges they faced. One student, looking back on her experience in the prior fall's program, put it this way:

In the cluster we knew each other, we were friends, we discussed and studied everything from all the classes. We knew things very, very well because we discussed it all so much. We had a discussion about everything. Now it's more difficult because there are different people in each class. There's not so much — oh, I don't know how to say it. It's not so much togetherness. In the cluster if we needed help or if we had questions, we could help each other.

It is important to note that students in the CSP often made friends who fell outside their prior social networks. In these settings, where students came from a great diversity of backgrounds and traditions, students spoke not only of making new friends, but also of the diversity of views and experiences they came to know through those friendships.

Shared learning: Bridging the academic-social divide. The shared learning experience of learning communities did more than simply cement new friendships; it served to bridge the academic-social divide that typically plagues student life. Often, social and academic concerns compete, causing students to feel torn between the two worlds so that students have to choose one over the other. Learning communities helped students draw these two worlds together.

The development of these interpersonal relationships was important, because it was against this backdrop of a supportive network of peers that academic engagement arose. And it did so both inside and outside the classroom. Groups that formed within the classroom often extended

beyond the classroom in informal meetings and study groups. Once these were in operation, students were able to turn toward the material presented in class and their assignments. A common perception among program students was captured in the following comment:

You know, the more I talk to other people about our class stuff, the homework, the tests, the more I'm actually learning, . . . and the more I learn not only about other people but also about the subject, because my brain is getting more, because I'm getting more involved with the students. I'm getting more involved with the class even after class.

In this and other ways, participation in a shared learning experience enabled new college students to bridge the academic-social divide that typically confronts students in these settings. It allowed them to meet two needs, social and academic, without having to sacrifice one in order to meet the other. But more than simply allowing the social and academic worlds to exist side by side, the learning communities provided a vehicle for each to enhance the other. Students spoke of a learning experience that was different and richer than that with which they were typically acquainted. As one student noted "not only do we learn more, we learn better."

Little surprise then that in our quantitative data, students in the CSP had higher peer and learning activity scores. Their engagement with their peers in and outside the classroom served to involve them more fully in the academic matters of the classroom. They spent more time with their peers and more time with their peers on class matters. As a result, they spent more time studying. Not surprisingly, they also saw themselves as having gained more from participation in the CSPs.

Gaining a voice in the construction of knowledge. Learning communities at Seattle Central Community College met as one large class, and the faculty worked together as a collaborative team in the classroom. They consciously sought to model learning for the students and include students as active participants in the construction of classroom knowledge. Equally important, they sought to challenge student assumptions about how knowledge is constructed and have students take personal ownership over the learning process. It was an experience that required students to rethink what they knew and become personally involved in deciding what they knew and how they knew it. In that way, they sought to have students take ownership over the learning process. The result was not only a sense of personal involvement in learning that students saw as very different from past educational experiences, but also a type of learning that students saw as richer and, for some, empowering. As one student observed:

So you're constantly having to think, rethink, and even re-rethink what's going on in light of all the feedback you're getting from all these different points of view, and what it does is shape and mold your own point of view to a much finer degree. . . . We not only learn more, we learn better.

Students appreciated the contrasting, though complementary, ideas from different instructors. They saw instructors grapple with and analyze their own content and synthesize it with the content from other disciplines into a course with one main theme. The continuity of course activities and assignments provided students with opportunities for guided practice in their own thinking across disciplines, in-depth exploration of key concepts, and relating course materials with their lived experiences. The result was high levels of discussion and activity within the CSP and a sense of personal involvement in learning that students saw as very different from past educational experiences.

The multidisciplinary approach also provided a model of learning that encouraged students to express the diversity of their experiences and world views. In doing so, it allowed age, ethnic, and life experience differences among students to emerge and become part of class content. Many students commented on the range of diversity as a way to learn more than just *about each other*. They saw student (and faculty) diversity as an important factor in their learning *about the content*. They appreciated the multiple perspectives that a diverse population provided in the CSP process and, in turn, felt comfortable expressing their own ideas and questions.

I think more people should be educated in this form of education. I mean, because it's good. We learn how to interact not only with ourselves, but with other people of different races, different sizes, different colors, different everything. I mean it just makes learning a lot better.

The innovative approach of the CSP encouraged students consciously to address issues of their own learning. The diversity of learning experiences challenged students' understandings of what it means to attend college and to learn and their assumptions about how knowledge is constructed. The process of collaboration between students and faculty and with the course content provided a new model of learning that encouraged students to embrace an expanded picture of the learning process. The students reported that they learned concepts better by seeing them presented from perspectives that crossed content areas and found deeper appreciation of the many ways in which knowledge is created.

Before turning to the conclusions, it should be noted that these findings, both quantitative and qualitative, were the same regardless of when students enrolled in the CSP classes. Students who enrolled late in the CSP, that is to say for whom it was the only available option — indeed

some were not aware of the program prior to enrolling — showed similar outcomes and expressed similar views of their experience. Clearly, one could not dismiss the outcome of program participation as merely the result of the program having allowed particular types of students to self-select themselves into a program that permitted them to engage in behaviors they would have otherwise carried out elsewhere.

Conclusions

These results provide insight into two distinct, yet interrelated, issues: what impact learning communities have on student learning and persistence and what role classroom experience plays in the process of student persistence.

Learning Communities, Learning, and Persistence

The results of our studies lend support to some of the basic tenets of learning communities and the collaborative pedagogy that underlies them. First, it is evident that participation in a collaborative or shared learning group enables students to develop a network of support — a small supportive community of peers — that helps bond students to the broader social communities of the college while also engaging them more fully in the academic life of the institution. This community of classroom-based peers, formed in the CSP, served to support students and encourage their continued attendance and class participation. It did so both inside and outside the classroom. Groups that formed within the classroom often extended beyond the classroom in informal meetings and study groups — or as one student put it, “we are more involved with class after class.” In this manner, collaborative learning settings enabled new students to bridge the academic-social divide that typically confronts students in these settings. They were able to meet two needs, social and academic, without having to sacrifice one in order to meet the other. In effect, these classrooms served as the academic and social crossroads out of which “seamless” educational activities are constructed.⁹

Second, it is apparent that students are influenced by participating in a setting in which sources of learning come from a variety of perspectives beyond that of one faculty member. The sharing of a curriculum and the use of collaborative pedagogy that brought students and faculty together to teach added an intellectual richness to student experience that the traditional pedagogy did not. Course activities allowed students to connect their personal experiences to class content and recognize the diversity of views and experiences that marked differing members of the classroom. In opening up the conversation about what is known to many voices, stu-

dent and faculty, the program led many students to discover, or better yet uncover, abilities they had not appreciated until then.

Third, though we did not obtain information about "learning" as measured by tests either of content or skills (e.g., critical thinking, etc.), we know that student perceptions of intellectual gain as well as academic performance as measured by GPA were greater in the learning community setting than in the more traditional learning settings and that these "gains" were independent of student attributes.¹⁰ Just as important, we know from student comments that the quality of learning was seen to be different, indeed deeper and richer, in the collaborative learning settings. Again as one student told us; "we not only learn more, we learn better."

Finally, our findings reveal that it is possible to promote student involvement and achievement in settings where such involvement is not easily attained. Unlike many "involving" colleges that are small, private, and residential, the setting we studied was nonresidential. More importantly, the students we studied, unlike students in residential settings who typically devote most, if not all, of their time, in one form or another, to the life of the college, students in nonresidential settings, such as Seattle Central Community College, have to attend to a multiplicity of obligations outside of college. For them, going to college is but one of a number of tasks to be completed during the course of a day. Yet even in that setting, collaborative learning "works." Indeed, it may be the only viable path to greater student involvement (Tinto & Russo, 1993; Tinto, Russo, & Kadel, 1994).

In this manner, our research fills a critical gap in the work of Astin (1993), Tinto (1987, 1993) and others who have explored the importance of student involvement to student attainment. While reaffirming the fact that involvement matters, our research provides empirical documentation of at least one way in which it is possible to make involvement matter in an urban community college setting. In doing so, it moves our conversation about involvement beyond the recognition of its importance to the practical issue of how involvement can be generated in settings where involvement is not easily obtained, in this case by restructuring the student educational experience of the classroom.

Classrooms as Communities and Theories of Student Persistence

Our research also provides insight into the ways in which classroom experience shapes student persistence and, in turn, the manner in which current theories of student persistence might be modified to better reflect the educational character of college life. Specifically, it suggests important relationships, on one hand, between the educational activity

structure of the classroom, student involvement, and the quality of student effort and, on the other, between quality of student effort, learning, and persistence. And, again, it suggests that these relationships are likely to be especially important for those students and in those collegiate settings where involvement is not easy to achieve, namely, for commuting and working students and on nonresidential campuses, in particular those in urban settings.

Student social involvement in the educational life of the college, in this instance through the educational activity structure of the curriculum and classroom, provides a mechanism through which both academic and social involvement arises and student effort is engaged. The more students are involved; academically and socially, in shared learning experiences that link them as learners with their peers, the more likely they are to become more involved in their own learning and invest the time and energy needed to learn (Tinto, Goodsell, & Russo, 1993). The social affiliations that those activities provide serve as a vehicle through which academic involvement is engaged. Both forms of involvement lead to enhanced quality of effort. Students put more effort into that form of educational activity that enables them to bridge the academic-social divide so that they are able to make friends and learn at the same time. That increased effort leads to enhanced learning in ways that heighten persistence (Endo & Harpel, 1982; Tinto & Froh, 1992). Figure 1 graphically

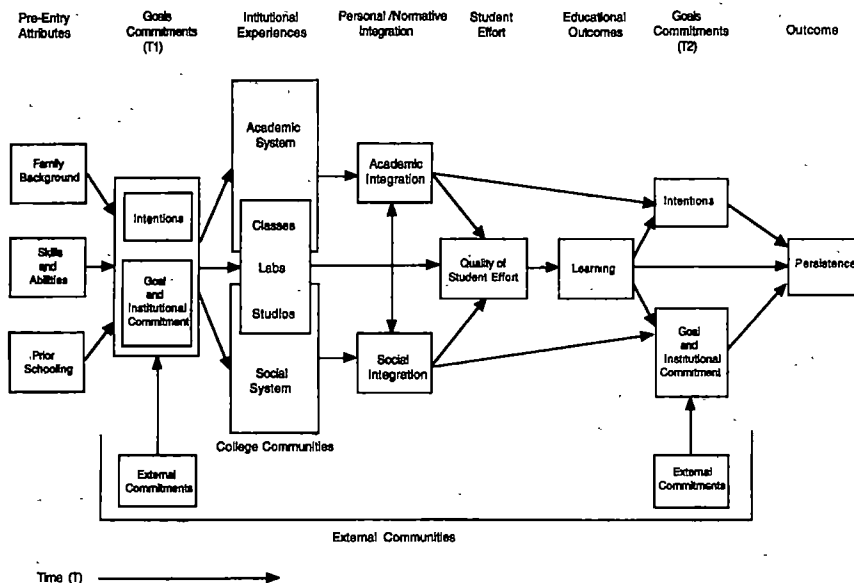


FIG. 1. Suggested Model Linking Classrooms, Learning, and Persistence

represents how a modified theory of student persistence, which links classrooms to effort and persistence, might appear.

It does not follow, however, that the linkage between involvement and learning, on one hand, and between learning and persistence, on the other, is simple or symmetrical. As to the impact of involvement upon learning, one has to ask about the specific nature of student involvement. Not all involvements lead to learning in the same fashion. Much depends on the degree to which student involvement is a meaningful and valued part of the classroom experience. Having a voice without being heard is often worse than having no voice at all. As to the linkage between learning and persistence, though learning is in general positively associated with persistence, it is not the case that learning guarantees persistence or that failure to learn, beyond the obvious case of academic failure ensures departure. Although for most, if not all, institutions academic involvement does matter more than social involvement, it is also true that both social and academic involvement influence persistence. For some students, even high levels of academic involvement and its consequent learning may not be enough to offset the effect of social isolation; for others, sufficient social integration or involvement may counterbalance the absence of academic involvement. These students stay because of the friendships they have developed. Of course, the absence of any academic involvement typically leads to academic failure and thus forced departure.

The informed observers might argue, at this point, that there has been little research to support this claim. Indeed they might note that measures of academic integration have not always been found to be associated with persistence. True enough. But issues of specification aside — that is, of the ways we have measured, or perhaps better yet, mismeasured the concept “academic integration” — it is very likely that what we have measured reflects the fact that most classrooms are not involving and therefore not a factor in student persistence. This does not mean that they *could not* play a role in persistence, only that they have typically *not yet* played that role. This research shows that they can.

Classrooms as learning communities. The results of our research lead us to speak, then, of classrooms as smaller communities of learning which are located at the very heart of the broader academic community of the college. Classrooms serve as smaller academic and social meeting places or crossroads that intersect the diverse faculty and student communities that mark the college generally. Membership in the community of the classroom provides important linkages to membership in communities external to the classroom. For new students in particular, engagement in the community of the classroom becomes a gateway for subse-

quent student involvement in the academic and social communities of the college generally (Tinto, Goodsell, & Russo, 1993).

Colleges can be seen as consisting not merely of multiple communities, but of overlapping and sometimes nested academic and social communities, each influencing the other in important ways. By extension, the broader process of academic and social integration (involvement) can be understood as *emerging from* student involvement with faculty and student peers in the communities of the classrooms. It is a complex multidimensional process, which links classroom engagement with faculty and student peers to subsequent involvement in the larger academic and social communities of the college. Thus the likely link exists between this research and that of Attinasi (1989), Kuh (1993, 1995), Kuh, Schuh, Whitt, & Associates (1991), and Rendon (1994) on the role of out-of-class experiences to student learning and persistence.

This view of the role of classrooms in student academic and social involvement leads us to the recognition of the centrality of the classroom experience and the importance of faculty, curriculum, and pedagogy to student development and persistence (see Pascarella & Terenzini, 1991). This is true not only because contact with the faculty inside and outside the classroom serves directly to shape learning and persistence, but also because their actions, framed by pedagogical assumptions, shape the nature of classroom communities and influence the degree and manner in which students become involved in learning in and beyond those settings. Faculty do matter and not only because of their out-of-classroom activities.

Thinking about the temporal process of learning and persistence. If we take seriously the notion argued above of the dynamic interplay between involvement, quality of effort, learning, and persistence, we can then postulate a more complex view of the longitudinal process of student persistence as it occurs over the course of the first year of college, if not the entire student career, than has thus far been described in the literature on student persistence (Tinto, 1989). Specifically, our preceding conversation suggests that the manner in which social and academic involvements (integration) shape learning and persistence will vary over the course of the college career and do so in differing ways for different students inside and outside the classroom.

During the first several weeks of the first-year of college, the work of Attinasi (1989) and, very recently, Tinto and Goodsell (1994) suggests that issues of social membership may be somewhat more important than those of academic membership, at least for younger students who leave home after high school to attend residential four-year institutions. Attinasi (1989) notes that new students — in this case Mexican American

students entering a large public university — talk about the need to attach themselves to relevant social groups as a way to cope with the difficulties of “getting in” to college. More importantly, this attachment and the social support it provides may be a necessary precondition for subsequent involvements.

The same observation can be made about the first-year experiences of students attending a large public university on the West Coast (Tinto & Goodsell, 1994). At first, new student attention is focused on the need to make social connections with their student peers. Though classes matter, students’ concern regarding academic involvement appears to be played out against a broader backdrop of social issues and concerns they have over social membership. As students progress through the first year and toward their degree, their concerns appear to shift toward a greater emphasis on academic issues. Once social membership has been achieved, or at least once concerns over it have been addressed, student attention appears increasingly to center on academic involvements.

It is noteworthy, in this regard, that Neumann and Neumann’s (1989) study of junior and senior persistence at a northeastern university indicates that students’ progress from freshman to senior years is increasingly shaped by educational rather than social concerns and by their educational experiences in the institution. Their study emphasized what they refer to as a “Quality of Learning Experience” approach, wherein persistence is conceptually linked to student perceptions of the quality of their learning environments and their interaction with faculty about learning issues. The significant predictors of junior and senior persistence proved to be student involvement in learning activities, students’ views of the quality of teaching, advising, and course work, and their contact with faculty.

The likelihood that persistence is marked over time by a changing balance of academic and social involvements leads us to consider the parallels between the longitudinal process of persistence we have just described and those that describe moral and intellectual development. Could it be that the process of persistence in being linked to that of learning is, like Chickering’s (1969) or Perry’s (1970) model of student development, also shaped by a shifting need in students for differing forms of social and intellectual engagements? Might it be that fulfilling one need, the social, is, for many students, a developmental precondition for addressing the need for intellectual engagement? We should, of course, be very cautious about pushing these parallels too far. By noting the possible parallel between our view of the temporal process of persistence and that of student development, we are forced to ask whether our impressions are merely a reflection of the types of students who have

thus far been studied, namely youthful students attending four-year institutions. Would the same results apply equally well to older students or to students in two-year institutions who are immersed in external communities of work, family, and friends? For older students who commute to school, for instance, early academic involvements may be more important, especially as they shape the person's sense of their own ability to cope with the academic demands of college or, to borrow Rendon's term, "validate" a student's presence on campus (Rendon, 1994). Clearly there is a much research to be done.

Closing Comment

What does all this mean for our existing models of student persistence? First it means that we need to remind ourselves that our current two-dimensional graphic representations of interaction, which depict social and academic systems of colleges as two separate boxes, mask the fuller relationship between these two spheres of activity. A more accurate representation would have academic and social systems appear as two nested spheres, where the academic occurs *within* the broader social system that pervades the campus. Such a depiction would more accurately capture the ways, noted here, in which social and academic life are interwoven and the ways in which social communities *emerge* out of academic activities that take place within the more limited academic sphere of the classroom, a sphere of activities that is necessarily also social in character.

As a methodological aside, this research reminds us that we would be well served by supplementing our use of path analysis to study the process of persistence with network analysis and/or social mapping of student interaction patterns. These will better illuminate the complexity of student involvements and the linkages that arise over time between classroom and out-of-class experiences. More importantly, they will shed important light on how interactions across the academic and social geography of a campus shape the educational opportunity structure of campus life and, in turn, both student learning and persistence.¹¹

We have too long overlooked the essentially educational and developmental character of persistence as it occurs in most college settings. There is a rich line of inquiry of the linkage between learning and persistence that has yet to be pursued. Here is where we need to invest our time and energies in a fuller exploration of the complex ways in which the experience of the classroom comes to shape both student learning and persistence. Among other things, we need to pursue Braxton's (1995) lead and ask about the role of faculty teaching in persistence and more carefully

consider the notion, as we have here, that choices of curriculum structure (e.g., learning communities) and pedagogy invariably shape both learning and persistence on campus (e.g., cooperative teaching), because they serve to alter both the degree to which and manner in which students become involved in the academic and social life of the institution. As we do so, we will discover what many educators have been trying to tell us for years, namely, that at its core college is an educational experience and that conversations about persistence that ignore important questions of educational practice are conversations that are at best shallow.

Notes

¹Perhaps this arises from the institutional lenses through which most researchers have looked at student persistence. We see the issue as it is conditioned by the settings in which we work, that is, large residential universities with relatively privileged students who have the luxury of being able to spend time on campus.

²It is perhaps telling that current versions of Quality of Student Effort Scales are relatively insensitive to the range and degree of educational experiences that arise within the classroom. For the most part, these scales tend to emphasize activities that arise outside the classroom.

³For a fuller description of the program at Seattle Central Community College the reader should refer to Tinto and Russo (1993).

⁴For the purposes of this study we took first-year college students as representing those persons who enrolled in the institution in question for the first time, regardless of prior enrollment.

⁵We compared student attributes and persistence outcomes for the initial response group as a way to testing whether the results of the study might have been shaped by the character of those who responded to the follow-up questionnaire. We found nothing to suggest that our results would not have applied to all students, had they all responded to the follow-up questionnaire.

⁶For a more complete discussion of the data (e.g., variables, measures, etc.) the reader is again urged to see Tinto and Russo (1993).

⁷In this case, variables were entered in a logical order as determined by the temporal sequence of events that describe the students' movement from entry through to the start of the second year of college, namely, from preentry attributes to experiences within the time frame of the study to outcomes as measured first by learning and second by persistence over subsequent time periods.

⁸We also developed a measure of educational continuation to capture the fact that a number of students in the CSP transferred to the nearby university after having participated in the CSP. Though subject to some error, logit regression analysis on continuation yielded similar but even stronger results.

⁹The term "seamless" is Kuh's (1995). It refers to that type of collegiate setting where the boundaries between the academic and social are blurred, where there is an integration of the academic and social. In this case, we argue that such seamless settings, from the students' perspective, can be constructed from the classroom experience. Indeed, in the case of nonresidential institutions, the great bulk of institutions of higher education, it may be the only viable mechanism through which seamless institutions are "constructed."

¹⁰At some point, the researchers run the risk of being excessively intrusive and placing themselves in the position of studying people who are very aware of being studied. We sought to avoid that situation.

¹¹Much like the concept "opportunity structure," which sociologists have employed to study the dynamic aspects of social stratification, the term "educational opportunity structure" can be seen as describing the interconnected chains of relationships and interactions out of which personal affiliations are wrought and contextual learning arises.

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Student Price Response in Higher Education

An Update to Leslie and Brinkman

In 1987 Larry Leslie and Paul Brinkman published an important review of the literature on the relationship between price and enrollment in higher education. Their article reviewed 25 quantitative analyses of this relationship, which varied in their data sources, methods of analysis, and population studied. In their later book, *The Economic Value of Higher Education*, the authors also reviewed 45 econometric analyses of the relationship between student financial aid and college enrollment.

Leslie and Brinkman described why student demand research was important a decade ago, stating that "expanding and equalizing student access long has been a major public policy goal, and manipulation of price has been seen as the major policy instrument for achieving this goal" (p. 182). These words are no less true today, when both public and private college tuition prices have grown at rates that have far outpaced the ability of students and their families to pay for college. Table 1 presents the annual real increase in tuition and fee charges at public and private institutions, as well as the annual change in median family incomes for four periods over the last two decades. In the latter half of the 1970s, tuition prices at both public and 4-year private institutions fell in real terms, because tuition increases did not keep pace with the double-digit inflation of this period. In the 1980s real tuition rose in all sectors, but at a faster rate in private colleges. While the 1990s have seen a slowing of the rate of growth of private college tuitions, the rate at public colleges has in-

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TABLE 1

Annual Changes in Undergraduate Tuition Prices at Colleges and Universities,
and Changes in Incomes

Period	Public College Tuition		Private College Tuition		Median 4-Person Family Income
	4-Year	2-Year	4-Year	2-Year	
1976-1980	-3.1%	-1.6%	-0.8%	0.7%	-1.2%
1980-1990	4.3%	3.2%	5.0%	4.1%	1.0%
1990-1994	6.1%	6.6%	3.1%	2.3%	0.4%
1976-1994	3.0%	2.8%	3.2%	2.9%	0.2%

SOURCE: Author's calculations from National Center for Education Statistics (1995), Table 306, and U.S. Bureau of the Census (1995).

NOTE: All changes in constant (1994) dollars. Public tuition is for resident students and includes all mandatory fees (excluding room and board).

creased.¹ This has occurred at a time when incomes in the country have stagnated, and the income gap between rich and poor families has widened.² The net result is that college is even less affordable today than it was ten or twenty years ago.

Although the Leslie and Brinkman review was comprehensive at the time it was published, the most recent data they analyzed were from the early 1980s, with most studies using samples from the 1970s and earlier. These studies could not capture the effects of the increases in real tuition prices during the 1980s and 1990s. The price of college today receives even more attention than ever, with national newsmagazines trumpeting the "\$1,000-a-week price tag at elite institutions" (Morganthau & Nayar, 1996). Policymakers need to know today even more than ever what the effects of these increasing prices are.

The ensuing years since the publication of Leslie and Brinkman's work have seen the release of many student demand studies that add more information to our understanding of the relationship between price and higher education enrollments. Many of these new studies look at the effects of different forms of financial aid separately from tuition changes. In addition, many focus on the effect of tuition and aid changes on students of different income categories, races, and in different college sectors. In this article I review approximately twenty quantitative student demand studies and examine their new findings in comparison to those of Leslie and Brinkman almost a decade ago. The goal here is not to repeat their meta-analysis with the more recent studies, but rather to extend the Leslie and Brinkman findings to address such question as:

- Do tuition and financial aid changes have the same effects on later cohorts of students as those found by Leslie and Brinkman?

- Do tuition effects differ from those of various forms of financial aid?
- Do these tuition and financial aid effects differ for students of different incomes, races, or in different college sectors?

Knowing the answers to these questions, or at least some possible answers, can help policymakers determine the likely impacts of changes in tuition and financial aid policies at the federal, state, and institutional levels.

1. Findings of Leslie and Brinkman

As described earlier, Leslie and Brinkman (1987) reviewed 25 studies of the relationship between price and college enrollment that were published between 1967 and 1982, including both cross-sectional (5) and time-series (20) analyses. These studies examined different types of institutions, public and private, 2-year and 4-year. Building on a methodology employed in an earlier study by Jackson and Weathersby (1975), they followed a three-step process to standardize each in order to compare results that covered data over a 50-year period. These steps included

- (1) transforming results to a common measure of student response to price change, (2) correcting all values to reflect consistent price levels, and (3) converting data from various age-group populations to a common age base. (p. 184)

These steps resulted in the calculation of a student price response coefficient (SPRC) for each study. The SPRC is defined as the change in the college participation rate of 18–24-year-olds for every \$100 increase in tuition prices (in 1982–1983 dollars). Because demand theory indicates that as prices rise, college enrollment rates should fall, *ceteris paribus*, one would expect the SPRC to be negative.

Leslie and Brinkman found that

the mean price response is about 0.7 percentage points. That is, for every \$100 increase in tuition price — given 1982–1983 average weighted higher education prices of \$3,420 for tuition and room and board — one would expect an 18–24-year-old participation *rate* drop of about three-quarters of a percentage point. (p. 188)

They went on to note,

Since the national higher education participation rate was about 0.33 in 1982, U.S. enrollments would decline by about 2.1 percent for each \$100 price increase, all other factors equal.³ (p. 189)

The SPRCs the authors calculated from the 25 studies ranged from -0.2 to -2.4 .⁴ The modal response was an SPRC of -0.6 , which they adopted as their "best estimate for public policy purposes" (p. 189).

In the conclusion of their article Leslie and Brinkman addressed the quandary that college participation rates grew in the United States over the previous two decades, even in the face of increasing college prices. They answered this by noting that college prices, though increasing in nominal terms, had not risen significantly in real terms. They also indicated the ameliorating effects of financial aid, especially for lower income students, who would be most sensitive to tuition changes (a precursor of their findings on aid, which are discussed in more detail in their book). Most importantly, they noted, "Demand is known to be affected not only by price but by the money income of the buyer, by tastes and preferences, and by the value of the good from a consumption or an investment perspective" (1987, p. 200).

Leslie and Brinkman's meta-analysis was an important contribution to the literature. It confirmed the findings of earlier analyses performed by Jackson and Weathersby (1975) and McPherson (1978). Jackson and Weathersby examined seven studies and found SPRCs from -0.05 to -1.46 . McPherson examined ten studies and found SPRCs from -0.05 to -1.53 . Both of these ranges are similar to that of Leslie and Brinkman when one takes into account that the SPRCs in the two earlier studies were normalized to 1974 dollars⁵.

2. Analyses Focusing on the Relationship between Price and College Enrollment

Many student demand studies have been published since Leslie and Brinkman's (1987) review was conducted. Some help fill the methodological gaps left by the earlier studies; many address later cohorts of students. All of them help to shed light on the question of how sensitive higher education enrollment rates are to increases in tuition. Researchers have used different levels of tuition increase as the question variable in their studies, with some replicating Leslie and Brinkman's use of a \$100 tuition increase and others choosing differing amounts. Thus, it is important to note the level of increase used in each study when evaluating the resulting enrollment effect. Whereas cross-sectional studies generally used current dollars as a tuition measure, time-series studies generally used constant dollars indexed to a base year.

Kane (1991) used both cross-sectional and time-series methodologies to examine the college enrollment patterns of white and black students from two data sets — the National Longitudinal Survey of Youth

(NLSY) and the Current Population Surveys (CPS). The NLSY surveyed youth who were 14–22 years old in 1979. Kane used this survey and CPS data from 1970 to 1988. In both data sets, and for both white and black populations, he found that higher levels of tuition were associated with lower enrollment rates (controlling for other characteristics), with the tuition sensitivity higher for black students. For example, using the NLSY data, he estimated that a \$1,000 increase in tuition (in 1988 dollars) was associated with a 15 percentage point decline in college entry for blacks and a 13 percentage point decline for whites. He found similar but smaller effects using CPS data. Kane (1994) tested these conclusions further by performing a similar analysis on the senior cohort of the High School and Beyond (HSB) survey of 1980, with controls for student background characteristics. He found an SPRC ranging from -0.63 to -1.22 for a \$100 tuition increase, depending upon the income group examined.

In a later publication, the same author (Kane, 1995) examined changes in tuition and aggregate enrollments in public colleges and universities in each of the fifty states during the period 1980 to 1992, using enrollment data from the Integrated Postsecondary Education Data System (IPEDS) surveys conducted by the National Center for Education Statistics. Controlling for unemployment rates and need-based grant spending in each state, he analyzed the effect of a \$1,000 tuition increase (in 1991 dollars) at community colleges and 4-year colleges.⁶ By itself, the community college increase resulted in a drop in total public enrollments of 3.5 percentage points. Similarly, an increase at the 4-year colleges resulted in a total enrollment decrease of only 1.4 percentage points. These findings indicate that students are more sensitive to tuition increases in community colleges, which is not surprising, given that these colleges are often the entry point into higher education for the poorest students.

St. John (1990) used cross-sectional analysis to update Leslie and Brinkman's (1987) SPRC findings. He analyzed the sophomore cohort of the HSB survey to test tuition sensitivity, controlling for students' background characteristics and financial aid awards. Combining students in all types of institutions (4-year and 2-year, public and private), he found that a \$1,000 increase in tuition decreased enrollment rates by 2.8 percentage points. This is lower than Leslie and Brinkman's range of -0.50 to -0.80 for a \$100 increase. St. John commented on this difference:

The lower price-response measures reported here may be attributable to (1) change in SPRCs over time, (2) methodological differences between this study and other studies, or (3) a combination of the two. (p. 171)

Noting that other studies using similar methodologies to compare SPRCs in the 1970s and 1980s found few differences,⁷ St. John con-

cluded that methodological variations in his model specification most likely accounted for the lower SPRCs he found. The most important methodological difference was that his study included financial aid in the models. Less than a quarter of the studies in Leslie and Brinkman's (1987) article included financial aid (or net tuition) as a question variable. As described later in this article, because financial aid does affect enrollment, its inclusion in a model likely serves to dampen the effects of tuition on enrollment. St. John's findings in this study with respect to the effects of financial aid are described in the next section.

Savoca (1990) analyzed data from the National Longitudinal Survey of 1972 (NLS72) but used a different methodology than those of most other researchers who used this data set and similar longitudinal series. She argued that most other studies underestimate the tuition sensitivity of the college enrollment decision because they treat the decision to apply to college as exogenous:

By treating the application decision as exogenous, they are likely to understate the true price effects, for they ignore the possibility that a change in tuition may affect enrollments through its effect on the decision to apply to college. (p. 123)

Savoca is stating that the level of tuition may be a determining factor in whether a student decides to apply to college, an effect that would be missed in studies that examine only the tuition responsiveness of students who do apply and are admitted to a college.

Treating the application decision as endogenous, Savoca analyzed the same subset of the NLS72 data that was used by Fuller, Manski, and Wise (1982) in an earlier landmark study.⁸ Those authors found a general SPRC (for a \$100 tuition increase) of -0.23 for those students who applied and were admitted to a college. Savoca found that the tuition sensitivity of the decision to *apply* to college was -0.26 . As she concluded,

If we assume that a school's tuition charge and admission policy are set independently, i.e., that admission standards are unaffected by changes in price, then the price elasticity of the probability of enrollment is the sum of these two elasticities, -0.49 . Hence, the true elasticity of demand may be more than double the estimates reported in the literature. (p. 128)

Thus, Savoca argues, many other researchers who used similar methodologies to Fuller, Manski, and Wise may also have understated the true tuition sensitivity of the enrollment decision by as much as one half. One potential flaw with Savoca's analysis is that her models assume independence of the tuition-setting behavior of the institution and the setting of admissions policies. If in fact rising tuition prices force institutions to loosen admissions standards in order to meet enrollment targets,

Savoca's analysis may be overstating the impact of the application elasticity of demand.⁹

McPherson and Schapiro (1991b) analyzed eleven years of aggregate CPS data (through 1989) to examine the enrollment behavior of white students in three income categories. They found an SPRC (for a \$100 tuition increase) for lower-income students in all types of institutions of -0.68 . Although this figure cannot be directly compared to Leslie and Brinkman's because it is based on 1978–1979 tuition rates and is for lower-income students only, the authors conclude that their results "seem broadly consistent with typical cross-section findings" (p.221).

Shires (1995) used California enrollment and tuition data to calculate tuition elasticities of demand for the three public higher education sectors (community colleges, California State University, and University of California). He calculated elasticities of -0.15 , -0.20 , and -0.05 , respectively. Though these tuition elasticities are not mathematically equivalent to SPRCs, the author compared them with elasticities in Leslie and Brinkman (1987) and found them to be consistent with other student demand studies.¹⁰

A study by Heller (1996) combined state cross-sectional and time-series data to estimate fixed-effects models of public college enrollment rates. Using data from the IPEDS surveys and controlling for state unemployment levels and grant awards, he analyzed the relationship between tuition and enrollment rates and found an SPRC of -0.36 for a \$100 tuition increase (1993 dollars) at community colleges. This estimate is below that of Leslie and Brinkman (even taking into account inflation between 1983 and 1993), for as he noted, "One would expect a lower measure here, however, as this study analyzed the enrollment response of *all* students, not just first-time enrollees" (p. 19), who are the focus of the Leslie and Brinkman meta-analysis.

Rouse (1994) analyzed data from the NLSY to examine college enrollments at two-year versus four-year institutions. As a measure of price, she used the tuition price at public comprehensive colleges and community colleges in each student's state. Controlling for a wide range of background characteristics, she found tuition effects "similar to those estimated by others" (p. 74), with an SPRC of -1.0 when both two-year and four-year tuition prices are increased simultaneously.¹¹ She noted that more than two-thirds of the enrollment drop was predicted to occur at community colleges. Rouse also calculated cross-sector SPRCs to examine the effect on enrollments in each sector relative to a price change in the other. As community colleges can be considered a substitute for four-year comprehensive institutions (and vice-versa), one would expect a price increase in one sector to have a positive im-

pact on enrollments in the other. She found such an effect, as detailed in Table 2.

All the studies described here are consistent in one respect: each found an inverse relationship between tuition and enrollment rates. The exact size of the effect may differ depending upon the methodology used, the data set analyzed, and the type of students or institutions examined. But the magnitude of the effect is remarkably similar across most of these studies. The evidence indicates that a tuition increase of \$100 is consistent with a drop in enrollment of somewhere in the range of 0.50 to 1.00 percentage points, a range consistent with Leslie and Brinkman's (1987) estimates.

Again, it is important to note that these changes assume that all other variables affecting enrollment demand are held constant. Even given this caveat, however, the inverse relationship between tuition and enrollment has been confirmed. Appendix A summarizes the findings from the studies reviewed in this section.

3. Analyses Focusing on the Relationship Between Student Financial Aid and College Enrollment

Analyzing the relationship between financial aid and enrollment in public higher education is a more complex undertaking than looking just at tuition. If one assumes that financial aid is nothing more than a discount to the posted tuition price, then students should react similarly to the same-sized increase in financial aid or cut in tuition, because both would result in the same net cost to the student.¹² Unfortunately for policymakers, this does not appear to be the case.

One issue is that "financial aid" is not a singular entity, but is a term that incorporates many different forms of student financial assistance. This includes grants, subsidized loans, unsubsidized (market rate) loans,

TABLE 2
Cross-Sector Student Price Response Coefficients, NLSY

8% Tuition Increase in:	Predicted Change in Probability of Enrollment (Percentage Points)		
	Community Colleges	Comprehensive Colleges	Both Sectors
Community Colleges	-0.9	0.2	-0.7
Comprehensive Colleges	0.4	-0.6	-0.2
Both Sectors	-0.7	-0.3	-1.0

SOURCE: Rouse (1994).

tuition remission, and work study wages. The net cost paid by the recipient of a \$1,000 grant is different than that of a student receiving a \$1,000 subsidized loan. Economists would argue that these two could be compared simply by calculating the subsidy value of the loan and comparing this to the grant. Yet in practice it appears that students are not always rational economic actors, and they react differently to various forms of financial aid and tuition changes, even if the economic value of each is the same.

There is also evidence that students react to the “sticker price” of the college, either because they are not aware of the existence of financial aid or do not believe they would qualify for it.¹³ In a recent book, Mumper (1996) summarizes the dilemma facing policymakers who seek to use financial aid to lower the cost of higher education for needy students:

A plan which may look good in an economics class may prove counterproductive in the real world of college finance. In this view, lower-income students are likely to become discouraged by rapid increases in the “sticker price” of higher education. This occurs because information about tuition levels is much more widely known and available than is information about financial aid programs. (p. 45)

The evidence for this view can be seen in most of the studies described in this section. Those studies that analyze the relationship between enrollments and tuition changes compared to financial aid awards generally find varying effects for each. Similarly, those studies that include different types of aid as explanatory variables (i.e., grants versus loans) find different effects for each type. St. John and Starkey (1995), building on the earlier work of Dresch (1975), emphasize the importance of these effects for student demand research. They argue that the traditional use of only a single student price (whether the “sticker” tuition price or the net price paid after subtracting financial aid) in many student demand studies overlooks potential policy levers that can be used at the federal, state, or institutional level to affect the rates at which students enroll in college and where they attend. Although the exact impact of pulling these levers cannot be known for certain in advance, there is a large body of evidence that can help policymakers use financial aid — loans, grants, and work study — singularly and in tandem as tools for increasing access and choice in higher education. Because most aid is awarded based on financial need, much of the research looks at the relationship between aid and enrollments of lower-income students only.

With the implementation of Basic Educational Opportunity Grants (BEOG) in the 1972 reauthorization of the Higher Education Act (renamed Pell Grants in 1980), the federal government for the first time

began to issue need-based financial aid on a large scale.¹⁴ This provided an opportunity for researchers to examine the question of whether widespread availability of financial aid affected enrollment rates.

As with tuition rates, an excellent starting point for assessing the relationship between financial aid and access to higher education is the work of Larry Leslie and Paul Brinkman. In their 1988 book these authors examined three types of studies: multivariate analyses of student behavior, calculations of aggregate enrollment (what they term "participation") rates, and student opinion surveys. Because of the wide variety of methodologies used, even within each of the three types of studies, Leslie and Brinkman did not conduct a formal meta-analysis of the impact of aid on enrollment, as they did with the student demand studies. However, they did conclude,

Student aid, at least in the form of grants, does increase the enrollment of low-income individuals. The results of the participation rate studies do not lend themselves to unambiguous interpretation, but most studies indicate that a greater proportion of eligible low-income individuals were participating in higher education in the early 1980s than prior to the advent of the major federal grant program (BEOG/Pell). (p. 154)

From their analysis of the econometric studies they estimated that in 1982, 20% to 40% of the enrollment of lower-income students was due to the existence of grants, and 13% of middle-income student enrollments were due to grants. Adding these two figures together and adjusting for the relative enrollment rate of each income group, the authors concluded that 16% of all full-time students enrolled in college because of the existence of need-based grants.

One of the most influential articles included in Leslie and Brinkman's review was Lee Hansen's (1983) analysis of the effect of the BEOG program. He used data from the Current Population Surveys (CPS) to compare overall enrollment rates in 1971/1972 and 1978/1979, periods before and after implementation of the BEOG program. Looking at students from below and above the median income line, he found little improvement in the relative enrollment rates of poorer students in the later period as compared to before the implementation of BEOGs:

These data force one to conclude that the greater availability of student financial aid, targeted largely toward students from below-median-income families, did little, if anything, to increase access. The results certainly do not accord with expectations that access would increase for lower-income dependents relative to higher-income dependents. (p. 93)

The author confirmed this finding by examining the college enrollment expectations of graduating high-school seniors in NLS72 and the senior

cohort of the High School and Beyond (HSB) survey in 1980. He found no significant differences in the expectation of lower-income seniors in 1980 as compared to lower-income seniors in the earlier cohort, thus confirming the lack of impact of BEOGs.

Hansen provided four possible explanations for these counterintuitive findings: (1) financial aid may not have been targeted enough toward lower-income students; (2) the volume of aid available and size of the grants were not large enough to change the aggregate behavior of these students; (3) the enrollment rates of lower-income students might have been even *lower* if aid had not been available; (4) the findings may be the result of data and methodology problems.

Hansen's article provoked great controversy, especially for those policymakers and researchers who were invested in the notion that financial aid served to improve access for targeted populations. Many academics conducted studies to confirm or refute Hansen's findings or, at the least, to determine which of his explanations was correct. Most of these studies have been published subsequent to Leslie and Brinkman's book.

Kane (1994) tested Hansen's conclusions regarding the impact of the BEOG program on enrollments. He also analyzed CPS data from two time periods — 1970 to 1972 (before BEOGs) and 1973 to 1977. Like Hansen, he found that the enrollment rates of lower-income students relative to higher-income students did not increase in the later period. Kane proposed an additional explanation for these results to add to those put forth by Hansen:

Only the otherwise college-bound may have the time and incentive to solve the mystery of eligibility. To the extent that students are unaware of financial aid rules and programs, they [BEOGs] may simply subsidize the otherwise college-bound and such programs may be a pure transfer. (p. 8)

As described earlier, St. John and Starkey (1995) indicated that researchers should examine the relationship between enrollment and different types of financial aid separately and in combination. This method of analysis may elicit effects on access that would be missed by studies such as Hansen's and Kane's described here.

McPherson and Schapiro (1991a) pointed out three limitations of Hansen's analysis, limitations that also apply to Kane's (1994) work:

Year-to-year fluctuations may obscure underlying trends, so that increasing the number of years in the comparison is helpful. . . . Controlling for variation in other factors that affect the demand for enrollment is not possible with this method. . . . This kind of comparison is not responsive to changes over time in the targeting of student aid. (p. 311)

Their concern with the last point was that the targeting of student aid changed drastically in the late 1970s, as middle- and upper-income students became beneficiaries of the federal aid programs for the first time. These explanations equate most directly with Hansen's fourth explanation of his findings.

To test their hypothesis, McPherson and Schapiro (1991b) in another study analyzed data from the CPS for the 11-year period from 1974 to 1984, looking only at white students. They measured the effect on the enrollment rate of lower-income white students of a \$100 increase in tuition, financial aid, and net cost (tuition less aid). They found that a \$100 increase in any one of these measures led to a change in enrollments of 0.70 percentage points in the expected direction — increases in tuition and net cost decreased enrollments, and increases in financial aid increased enrollments.¹⁵

Some researchers analyzed separately the enrollment effects of different types of financial aid awards. Moore, Studenmund, and Slobko (1991) examined applicants to Occidental College, in their words a "selective college," in 1989. They found that for those students who applied for financial aid, a \$1,000 increase in grants would increase the probability a student would enroll by 7.8 percentage points. They found a similar-sized effect for a decrease in the net cost (tuition minus grants). In comparison with grant awards, they found that changes in the size of loan or work study offers had no effect on enrollments. The authors concluded that "tuition and scholarships affect the probability of enrollment of financial aid applicants, but that loans and work-study have no significant effect" (p. 311).

St. John (1990) used the HSB sophomore cohort to answer some of the same questions regarding the effect of tuition and financial aid on enrollment.¹⁶ Controlling for background characteristics, such as ability and socioeconomic status, he modeled the change in the probability of enrollment given changes in tuition, grants, loans, and work study awards. He found that all four of these variables affected the probability of enrollment as shown in Table 3.

Like Moore et al. (1991), St. John found similarly sized effects of tuition and financial aid. But unlike Moore et al., he found that enrollments were sensitive to changes in loans and work study as well as grants. Although St. John did not state if he tested whether the sizes of the effects were significantly different from one another, he did conclude that "on a dollar-for-dollar basis, all forms of aid are at least as effective as tuition decreases in promoting enrollment" (p. 168).

Jackson (1988) performed a cross-sectional analysis on data sets from two points in time — NLS72 and the HSB senior cohort — to examine

TABLE 3

Relationship Between Tuition, Financial Aid, and the Probability of Enrollment in Higher Education, 1982

\$1,000 Increase in:	Predicted Change in Probability of Enrollment (Percentage Points)
Tuition	-2.8
Grants	4.3
Loans	3.8
Work Study	4.6

SOURCE: St. John (1990)

NOTE: All variables significant at a level $p \leq 0.05$.

whether the determinants of the demand for college changed during the 1970s. His analysis examined many variables besides whether the student received any type of financial aid, including race, gender, region of the country, academic ability, and family income and socioeconomic status. Controlling for other factors, he found that financial aid recipients were 6.5 percentage points more likely to enter college in 1972, and 7.8 percentage points more likely in 1980. Jackson concluded,

High-school seniors, as a group, decided whether to enter college in 1980 much as they had in 1972. . . . Many federal programs of the time were supposed to increase college participation among groups traditionally under-represented: the poor, particularly, and disadvantaged minorities. Whether these programs had the desired effect — the evidence is somewhat controversial at this point, although the consensus is that they did — they produced neither an overall change in enrollment rates nor a substantial change in overall choice patterns. (p. 25)

St. John and Noell (1989) extended Jackson's analysis by examining students from NLS72, the HSB senior cohort, and the HSB sophomore cohort, thus giving them a comparison for three points in time — 1972, 1980, and 1982. These authors looked at the effects of each type of financial aid (grants, loans, and work study) separately, along with any combination of two or more types of aid. The question variable was whether the student received *any* aid of that type, not the *size* of the aid award. A summary of their findings is shown in Table 4. The authors concluded that

in all three years, financial aid offers with work only and packages with two or more types of aid had a slightly stronger impact than offers with scholarships or loans as the only source of aid. However, these differences are slight. Therefore, we conclude that all forms of aid were effective in promoting access in all three time periods. (p. 574)

Unlike Jackson, however, these authors reached the conclusion that the implementation of the BEOG program *did* improve access. Because aided students were more likely to attend college, and because more students overall received aid in 1980 and 1982 as compared to 1972 (shown in the last row of Table 4) they concluded that the BEOG program helped increase access to college.

The evidence regarding the relationship between financial aid and access to higher education is more complex than the findings on tuition described in section 2. Though difficult to generalize, those researchers who conducted cross-sectional analyses of the major longitudinal data sets (NLS72, NLSY, and HSB) found that students were sensitive to aid awards when they made the decision to enroll in college. The level of that sensitivity varied from study to study, depending upon the type of aid (grants, loans, or work study) and dollar value of the aid. The effect that aid has on enrollments is difficult to compare with that of tuition; whereas some of these studies found similar effects between the two (i.e., a \$100 increase in aid would have roughly the same effect on enrollments as a \$100 decrease in tuition), others found students to be less sensitive to aid than they were to tuition.

The evidence from the time-series studies is more mixed, however. Hansen's 1983 article, which compared enrollments before and after the creation of the BEOG program, concluded that the grants had no significant effect on access. His findings were echoed by Kane, at least in his 1994 article. Others, including McPherson and Schapiro (1991a), came to different conclusions, based on different interpretations of the data. These contrasting findings indicate that more time-series research is needed to determine whether the effects of financial aid are consistent over longer periods of time, and are not just an artifact of the periods

TABLE 4
Relationship Between Financial Aid and the Probability of Enrollment in
Higher Education in 1972, 1980, and 1982

Type of Aid	Predicted Change in Probability of Enrollment (Percentage Points)		
	1972	1980	1982
Grants	6.2	10.1	6.2
Loans	10.8	9.5	7.8
Work Study	14.9	11.0	9.7
Combination	14.7	8.2	9.5
Percentage Receiving Any Aid	26.8%	30.7%	35.2%

SOURCE: St. John and Noell (1989)

NOTE: All variables significant at a level $p \leq 0.05$.

studied in the cross-sectional analyses described in this section. Appendix B summarizes the findings from the studies reviewed here.

There is strong evidence from the cross-sectional studies that financial aid awards do affect enrollments, and some of the post-Hansen researchers have provided compelling explanations for his inability to find such an effect. The topic deserves further study to uncover the complexity of the relationship between financial aid and enrollment.

4. Analyses Focusing on the Relationship Between Student Financial Aid and College Enrollment for Students of Different Incomes, Races, and in Different College Sectors

Although the evidence is clear that both tuition prices and financial aid awards affect access to public higher education, it is important to understand if students with varying characteristics react differently to changes in tuition and financial aid. For example, do students from wealthier families have the same sensitivity to tuition increases as do those from poorer families? Do white students react to financial aid awards in a fashion similar to black students?

These questions are important because of the targeting effects of financial aid versus the broader effects of tuition. Though all students at a given institution are affected by tuition increases, financial aid can be narrowly targeted through the design of eligibility requirements. Thus, it is important to understand how different types of students react to changes in both tuition and financial aid.

A related question is whether tuition and financial aid changes have the same effect on access to different kinds of institutions, i.e., community colleges as compared to 4-year institutions. For example, does the awarding of a \$500 grant to a student at a community college have the same effect on that student's probability of enrollment as does a similar award made by a baccalaureate institution?

Many of the post-Leslie and Brinkman studies described in the previous two sections addressed one or more of these questions. Researchers have recognized the importance of group differences in these issues, and they have attempted to distinguish what effect those differences have on students' enrollment decisions.

Effects of Tuition and Financial Aid on Students of Different Incomes

All other things being equal, a student with more financial resources (of her own or from her family) should be less sensitive to tuition increases than would a student who had to make significant financial and

other sacrifices to afford a college education. Similarly, the marginal utility of a scholarship should be greater for this latter student than for the former, because of the discounting effect of the scholarship. Because poorer students have access to fewer funds to pay for college, the probability that they would enroll in college would likely decline more for every unit increase in net cost compared to wealthier students. In economic terms, the poorer student would be described as having a more elastic demand for higher education. The difference between two such students can be seen in Figure 1.

D_P represents the demand curve of a poor student, and D_w the demand curve of a wealthy student.¹⁷ At a very low tuition level, such as T_1 , both students have a probability of enrollment, P_1 , that is very close to one. At this level, tuition alone is not a barrier to entry for either student. As the price rises, to T_2 , the wealthier student would see a small drop in her probability of enrollment to P_2 . The probability of enrollment of the poorer student, who has fewer resources to pay for college and is therefore more sensitive to tuition increases, would drop closer to zero, to P_3 .

Most research on this topic has confirmed that these assumptions from economic theory do hold in practice. Students from lower-income families do tend to be more sensitive to tuition and aid when making un-

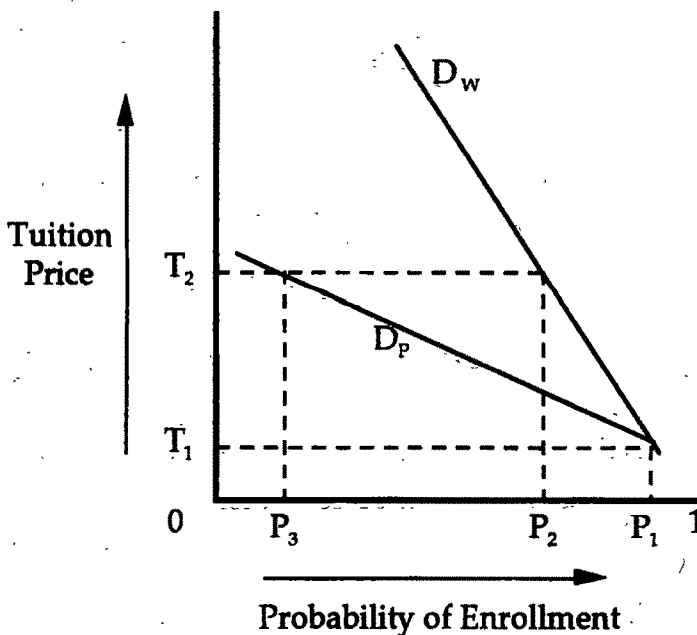


FIG. 1. Higher Education Demand of Poor and Wealthy Students

dergraduate enrollment decisions than do those from upper-income families. Leslie and Brinkman (1987) briefly discussed their findings concerning income levels. Some of the 25 student demand studies they reviewed looked at students of different income levels. They found that these studies were consistent in their finding of a higher level of price sensitivity for lower-income students, with price sensitivity generally lessening as income rises. Though they theorized that the increasing availability of financial aid should help to lessen these differences among income groups, they concluded that the evidence was only just becoming available (at the time of their review) to confirm this effect.

Besides confirming these relative relationships, researchers seek to determine more precisely what the respective tuition (and aid) elasticities of demand are for students of different income levels. Calculating these elasticities can allow policy makers to predict with some degree of certainty what the impact of proposed tuition and aid changes will be on students from different income categories.¹⁸

The effect of financial aid can be seen by reexamining the demand curves of poor and wealthy students shown earlier. Figure 2 shows the same two curves, D_p and D_w . A new curve, D_{p*} , represents the demand curve of poor students after the effects of financial aid are taken into account. While the slope of the curve stays the same (D_{p*} is parallel to D_p), the curve shifts to the right so that at any given tuition level, the probability of enrollment is greater. For example, at a tuition price of T_1 , the poor student without financial aid would have a probability of enrollment of P_1 , while that same student with financial aid would have an enrollment probability of P_2 , similar to that of the wealthier student.

One of the questions researchers in this arena seek to address is, How much does financial aid serve to shift the demand curve of recipients? Because the majority of aid is awarded based on financial need, does it actually eliminate all barriers to entry for poorer students, or does it eliminate only part or even none of the gap?

McPherson and Schapiro (1989) analyzed Current Population Survey (CPS) data from 1974 to 1984 to examine if tuition and aid sensitivities differ by income level.¹⁹ For a sample that included students in both public and private institutions, they found that those in the lowest income group were sensitive to tuition increases, with a \$100 increase resulting in a decrease in enrollment of 0.68 percentage points. These same students had no statistically significant reaction to a similarly sized decrease in financial aid. For middle- and upper-income students, McPherson and Schapiro found no effect of aid on their enrollment rates, and as they labeled it, the "perverse" (p. 41) result of a *positive* relationship between tuition increases and enrollment. They offered no explanation for this latter finding but did conclude, "Our most important

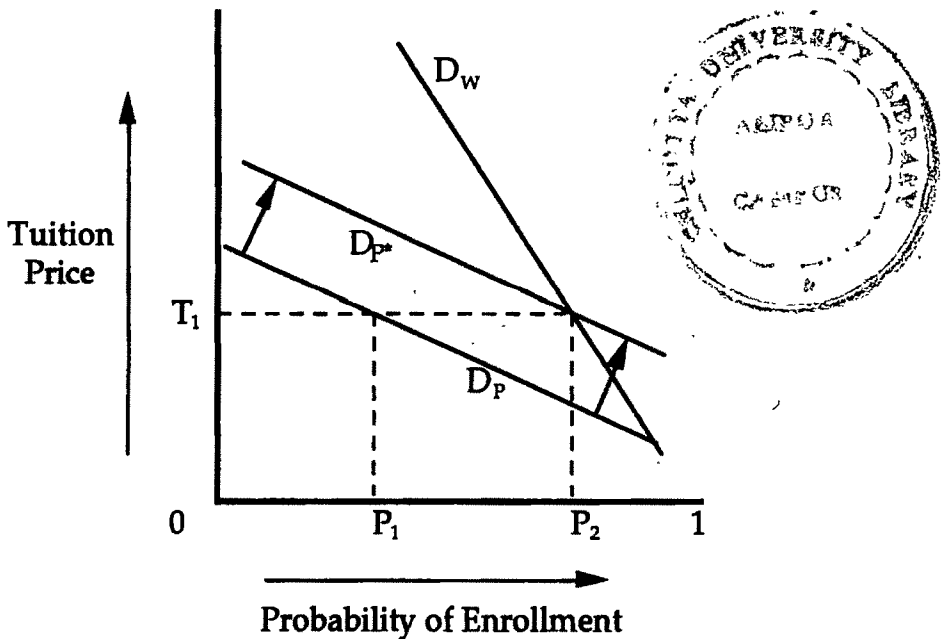


FIG. 2. Higher Education Demand of Poor and Wealthy Students, Showing Effect of Financial Aid.

and reliable finding is that increases in the net cost of attendance have a negative and statistically significant effect on enrollment for white students from low income families" (p. 42).

St. John (1990), in his analysis of the HSB sophomore cohort, divided students into four income categories and analyzed the effect of tuition and aid changes, controlling for student background characteristics. He modeled the effects on the probability of enrollment of a \$100 decrease in tuition and a \$100 increase in grants or loans. The results are shown in Table 5.

St. John found similar levels of tuition sensitivity for all but the wealthiest students, who were much less sensitive to tuition changes than were the other three groups. The poorest students responded more strongly to grant increases, probably because they were the group most likely to receive aid. Loans were an incentive to enroll only for students in the two middle-income groups. An interesting finding was that the poorest students reacted much more strongly to grant increases than to tuition decreases. This may have been because any tuition changes would be at least partially offset by a change in the size of the grant awarded to the student and may be an indication that students who received grants were responding more to the net cost, rather than the sticker price.

TABLE 5

Percentage Point Change in the Probability of Enrollment in Higher Education for Students of Different Income Levels, 1982

Income Group ^a	\$100 tuition decrease	\$100 grant increase	\$100 Loan increase
Less than \$15,000	0.34	0.88	NS
\$15,000–\$24,999	0.39	0.35	0.53
\$25,000–\$39,999	0.31	0.33	0.63
Above \$40,000	0.14	NS	NS

SOURCE: St. John (1990)

NS = not significant. All other variables significant at a level $p \leq 0.05$.

^aMedian income of 4-person families in 1982 was \$27,619 (U.S. Bureau of the Census, 1995).

McPherson and Schapiro (1994) used the American Freshman Survey (conducted annually by UCLA) to examine changes in the enrollment of students of different income levels between 1980 and 1993. They found that lower-income students were becoming more clustered in community colleges:

One of our most interesting findings is the increasing representation of low income students at public two-year colleges, and the declining representation of middle and upper income students there; . . . these data do seem worrisome. They suggest that the combined effects of tuition increases and limitations on federal student aid may be impairing the ability of low income students to gain access to institutions other than community colleges. (p. 14)

Though they did not conduct a traditional multivariate analysis to reach this conclusion, the authors ascribe this shift of poorer students into community colleges to greater tuition and aid sensitivity.

These researchers concluded that there is a relationship between income and sensitivity to tuition and financial aid. Although the sizes of the effects differ across studies, they find that poorer students are more sensitive to increases in net cost, whether those increases take the effect of tuition increases or financial aid decreases. These findings confirm the theoretical examples provided in Figures 1 and 2. Tuition increases that are not offset by concomitant increases in financial aid appear to have the effect of reducing access to higher education for our country's poorest students.

Effects of Tuition and Financial Aid on Students of Different Races

The previous section described how students of different income levels react to changes in tuition and financial aid. Another question ad-

addressed by many researchers is, How do tuition and aid changes affect students of different races? There are at least three explanations for why students of different races may have varying sensitivities to tuition and financial aid changes. The first is that race may be a proxy for income. If students of one race tend to be at one end or the other of the national income distribution as a group, they would have higher education demand curves that are similar to those of a given income group as a whole. There is some evidence for this, at least based on national statistics. Table 6 presents data from the U.S. Bureau of the Census on median family income nationally by race for selected years since 1972.

The data in Table 6 show that white families since 1980 and Asian families since 1990 have incomes that are at least 150% that of blacks and Hispanics. In addition, since 1990 incomes of whites and Asians have continued to grow, whereas those of blacks and Hispanics have stagnated. Other measures of socioeconomic status besides income, such as mother's and father's educational levels, tend to show similar patterns and likely work to reinforce the effect of income on the demand for higher education.

It is important to note that these are national, median figures. The distribution of incomes within each race may differ, as may the distribution in particular states or regions of the country. Distribution within racial groups may also differ — third generation Chinese Americans may have different income profiles than first generation immigrants from Southeast Asia. Nevertheless, the data show that there are significant differences in average incomes among the races; these differences may be driving variations in higher education entry and outcomes among the racial groups. An analysis of college dropout rates by the General Accounting Office (1995) noted, "Minorities are overrepresented among low-income families, so their rates serve as a reasonable proxy for low-income students' graduation rates" (p. 6).

TABLE 6
Median Family Income by Race since 1972, Current Dollars

Year	White ^a	Black	Hispanic	Asian
1972	\$11,694	\$6,864	\$8,183	NA
1980	\$22,336	\$12,674	\$14,716	NA
1990	\$38,239	\$21,423	\$23,431	\$42,246
1993	\$41,110	\$21,542	\$23,654	\$44,456

SOURCE: U.S. Bureau of the Census (1996).

NA = Not available

^aThe category "White" includes white, non-Hispanic origin families.

The second reason why students of different races might react differently to changes in tuition and aid in the aggregate is that they may be perceived to have different ability levels. Many of the student demand studies that analyzed cross-sectional data sets have found that higher ability students tend to have higher college enrollment rates, even after controlling for family income.²⁰ The whole issue of race and ability is fraught with political landmines and is not a central question in this analysis. However, aggregate SAT scores, which are used as measures of ability by most 4-year colleges and universities, show large differences between races. Table 7 summarizes these differences.

As with incomes, the profile of Asian students looks similar to that of whites, and black students' scores are closer to those of Hispanics. Measures of ability from other types of standardized tests show similar patterns. Regardless of one's view on the validity of these tests, the reality in the educational marketplace is that (1) colleges use these scores to assess students' academic abilities and make admissions decisions, and (2) these scores send signals to students about their own ability and preparedness for college. Higher ability students may see themselves more as "college material" and be more likely to make the financial sacrifices necessary to attend college if they perceive a better chance for success through graduation and subsequent entry into labor markets. Thus, if race is acting as a proxy for ability (perceived or actual), then students from particular racial groups may have different price elasticities because of differences in ability. Students who perceive themselves as having higher ability may be more likely to incur increasing college costs.

The last major explanation for differences in demand curves between racial groups is because of different "tastes" for higher education among these groups. It is these "tastes" for any good or service that help to shape the demand curve for that product. Irrespective of any differences in income or ability, people with different racial and cultural backgrounds

TABLE 7
Combined Verbal and Math SAT Scores by Race since 1975

Year	White	Black	Hispanic ^a	Asian
1975-1976	944	686	773	932
1980-1981	925	694	770	910
1984-1985	939	722	793	922
1990-1991	930	736	786	941
1993-1994	938	740	777	951

SOURCE: National Center for Education Statistics (1996).

^aAverage of Mexican-American and Puerto Rican scores.

may place different values on attending college. These values can determine how much a family is willing to invest in a college education. Karen (1991), for example, describes how the "political mobilization" of blacks from 1960 to 1976 may have helped to increase their college participation rates during this period. This action could have helped to change the "taste" for higher education among this group. Again, the sociological question of how much different groups value higher education is not central to this article, but it is important to note that such differences between races can affect their relative sensitivity to changes in tuition and financial aid.

One way to test whether tuition and aid differences between the races are due to income or academic ability levels is by including controls for these two measures in multivariate models. If family income, socioeconomic status, and ability are included in the model, and differences between the races still exist, then one can conclude that the differences are due to varying "tastes" for higher education or some other unobserved factor (such as discrimination).

Many researchers have examined differences in the sensitivity to tuition and aid changes among racial groups.²¹ Behrman, Kletzer, McPherson, and Schapiro (1992) analyzed the NLS72 survey, comparing the tuition sensitivity of white students with that of a sample of black and Hispanic students together. Controlling for student background characteristics (including parents' education, family income, and ability) and labor market conditions, they estimated the probabilities that a student would not enroll in higher education, enroll in a 2-year college, or enroll in a 4-year school. As a measure of college cost, they used the average in-state tuition at a 4-year college in the student's state of residence. They found that the enrollment of black and Hispanic students in 2-year colleges reacted *positively* to tuition increases at the 4-year schools, but their enrollment in 4-year schools was not related to tuition. This may indicate that higher tuition at baccalaureate institutions was pushing black and Hispanic students, who otherwise would enroll at 4-year institutions, into community colleges.

The authors found that white enrollments in 2-year institutions did not respond to changes in tuition, but interestingly enough, white enrollments in 4-year colleges reacted *positively* to tuition increases there. They concluded that for these students, "price is capturing a quality effect here for which we are unable to control" (p. 14). In other words, they theorized that higher-priced institutions were sending a signal of higher quality to students, thus providing more incentive for them to enroll there. This incentive had to have been large enough to offset any negative effect caused by students' inability or unwillingness to pay the higher tuition.

St. John and Noell (1989) examined white, black, and Hispanic students from the HSB sophomore and senior cohorts to measure the effect of financial aid on enrollment.²² They also included controls for socioeconomic status, family income, and ability. They found that black students were the most responsive to financial aid offers, followed by Hispanic students and then whites. Their findings are summarized in Table 8.

White students in 1980 who received only a grant (of any size) had a probability of enrollment 8.9 percentage points greater than that of white students receiving no aid. Black students in 1980 received almost twice the incentive from grants, with their probability of enrollment increasing 17.7 percentage points over unaided black students. The authors concluded, "Student aid appears to have a stronger impact on college attendance by blacks and Hispanics than whites" (p. 578). However, they did not explain the drop in the effect of grants among all three groups from 1980 to 1982.

Jackson (1989) also analyzed the HSB senior cohort to ascertain similar differences among white, black, and Hispanic students. Controlling for similar background characteristics as St. John and Noell (1989), he found that black enrollments responded more to financial aid offers than did those of other races. Blacks who received grants had a probability of enrollment 11.2 percentage points greater than unaided black applicants. In comparison, a white student who received a grant was 6.3 percentage points more likely to enter college than an unaided white. Hispanic students who received grants were no more likely to enter college than their counterparts who did not receive grants.

A possible explanation for the difference in these findings from those of St. John and Noell is that Jackson included in his model a construct of "college tendency," which was a composite of student background char-

TABLE 8

Change in the Enrollment Probability of White, Black, and Hispanic Students when Offered Financial Aid, 1980 and 1982

Type of Aid	Predicted Change in Probability of Enrollment (Percentage Points)					
	1980			1982		
	White	Black	Hispanic	White	Black	Hispanic
Grant	8.9*	17.7*	14.1*	4.2*	15.0*	3.8*
Loan	8.8*	14.5*	12.3	7.2*	11.2*	13.1*
Combination ^a	7.1*	11.9	16.9	8.1*	18.6*	15.0

SOURCE: St. John and Noell (1989).

^aIncluding work study.

* = $p \leq 0.05$.

acteristics he used to predict whether the student would apply to college or not. It was the inclusion of this construct that likely caused the finding that aid had no effect on Hispanic college entry. When Jackson dropped this variable from his models, he found that the reaction of Hispanic students to grant offers was between that of whites and blacks. As the author concluded:

Black students remain the most responsive to scholarship awards, the effect being about twice as large as it is for White students, but the response of Hispanic students cannot be distinguished from the effect of their family and academic backgrounds. (p. 24)

Jackson found that the existence of a loan provided no statistically significant incentive to enroll for any of the three groups.

Kane (1991), in his analysis of Current Population Survey data from 1970 to 1988, compared the responses of white and black students to tuition, Pell Grants, and the net cost of college. His models included controls for socioeconomic status and family income, but not ability. With all three measures of college costs, he found that the enrollment of blacks was more sensitive than that of whites. The difference in the respective sensitivities was greatest for tuition, indicating that sticker price is much more of a barrier to enrollment for blacks than for whites.

Heller (1994) conducted a state cross-sectional analysis comparing the change in public college enrollment rates from 1984 to 1991 of white and minority (black and Hispanic) students. The models included, as dependent variables the change in public college tuition, state need-based grants per capita, and unemployment rates. In every model, minority students were more sensitive to tuition increases than were white students, with the gap largest when grants and unemployment were used, as controls. Table 9 summarizes these findings.

The evidence from the studies described in this section is that black students are more sensitive to college costs than white students, even

TABLE 9
White and Minority Student Responses to Tuition Increases Between 1984 and 1991

Model	Percentage Point Change in Enrollment Rate Per \$100 Increase in Tuition		
	Minority	White	Gap
Tuition only	-0.63*	-0.58*	0.05
Tuition and Grants	-0.64*	-0.57*	0.07
Tuition, Grants, and Unemployment	-0.46*	-0.35	0.11

SOURCE: Heller (1994).

* = $p \leq 0.05$.

controlling for income, socioeconomic status, and ability. For Hispanic students, the evidence is more mixed. Whereas some authors found that Hispanic students tended to react to tuition and aid changes in a fashion similar to that of black students, others found a different response. These differences warrant further investigation.

*Effects of Tuition and Financial Aid on Enrollment
in Different Sectors of Higher Education*

Higher education in the United States is a very heterogeneous market. In 1992 over 12 million undergraduates attended college in this country (National Center for Education Statistics, 1994). Approximately ten million, or 83%, attended public institutions, with 46% of these in 4-year colleges and universities, and 54% in community colleges. Given the quite different missions of community colleges and baccalaureate institutions as well as the differences in how their graduates fare in labor markets, an important question for researchers and policymakers is whether students in each of these sectors react differently to changes in tuition and financial aid.

All other things being equal, one would expect students at community colleges to be more sensitive to tuition and aid than students at 4-year colleges. This is because lower-income students are overrepresented in community colleges, and as discussed earlier in this section, lower-income students are more sensitive to price increases.²³ Minority students also are overrepresented in community colleges.²⁴

In contrast to the other questions reviewed in this analysis, there has been little research that has compared the tuition and aid sensitivities of community college students with those in 4-year colleges. Some studies, however, have attempted to address this issue.

In their review of student demand studies, Leslie and Brinkman (1987 and 1988) examined a handful of studies that analyzed enrollments separately at public 4-year and community colleges. While they estimated the overall student price response coefficient (SPRC) to be -0.7 , they estimated the 4-year public SPRC to be -0.6 to -0.7 , and the community college SPRC to be -0.9 . They concluded that community college students were more responsive to tuition increases than students at 4-year colleges.

As described in section 2, Shires (1995) calculated tuition elasticities of demand for California community colleges, California State University, and the University of California. He calculated elasticities of -0.15 , -0.20 , and -0.05 , respectively, finding that community college students were more price responsive than students at the University of California, but slightly less responsive than students at California State University.

Kane's (1995) analysis of aggregate public enrollments by state looked at the effect on enrollments of increases in tuition at community

colleges and 4-year colleges. He modeled the effect of a \$1,000 tuition increase in each sector, using a similar methodology as that of Rouse (1994), described in section 2, to test cross-sector price responsiveness. His results are summarized in Table 10.

When tuition is increased \$1,000 at community colleges, all public enrollments drop 3.5 percentage points, with enrollments at community colleges dropping 4.7 points. Public 4-year enrollments actually increase, as tuition there becomes more cost competitive with community colleges. When tuition is increased \$1,000 at the 4-year colleges, total enrollments drop only 1.4 percentage points, with 4-year enrollments dropping 1.2 points. It appears from these findings that community college students are more likely to drop out of college entirely when their tuition is increased, compared with students at 4-year colleges.

Though not as extensive as some of the other questions addressed in this article, the literature on tuition and aid sensitivity by sector does show that community college students are more sensitive to price than are students in 4-year institutions. This is likely because of the overrepresentation of both lower-income and minority students in community colleges. Appendix C summarizes the findings from this section.

5. Conclusions

The studies reviewed in this article used a wide variety of methodological approaches and data sets to address a fundamental question: How sensitive are students to increases in college costs, and do the effects differ for students of different characteristics? Whether examining tuition, financial aid, or the net cost of attendance, the evidence is very consistent and can be summarized in one sentence:

As the price of college goes up, the probability of enrollment tends to go down.

TABLE 10
The Effect of Tuition Increases on Enrollments in Public 4-Year and Community Colleges, 1980 to 1992

\$1,000 Tuition Increase At	Percentage Point Change in Enrollment at		
	Community Colleges	Public 4-Year	All Public Colleges
Community Colleges	-4.7*	1.8*	-3.5*
4-Year	0.5	-1.2*	-1.4*

SOURCE: Kane (1995, Table 2).

* = $p \leq 0.05$

The magnitude of this effect varies, depending upon which population is examined, which component of cost is changed, and which statistical technique is used. It is also important to note that this is an aggregate effect, and may differ for individual institutions or groups of students. But as a whole, this fundamental relationship — the existence of a downward-sloping demand curve for higher education found by Leslie and Brinkman and other earlier researchers — has been confirmed.

The specific findings of this review include these key observations:

Tuition Sensitivity	Increases in tuition lead to declines in enrollment. The consensus among the studies reviewed is that every \$100 increase in tuition results in a drop in enrollments of 0.5 to 1.0 percentage points across all types of institutions, a finding consistent with that of Leslie and Brinkman (1987). It should be noted that this range is based on data, including tuition prices, from the 1970s and early 1980s, so that under today's higher tuition levels, the effect may be greater.
Aid Sensitivity	Decreases in financial aid also lead to declines in enrollment, with the effect differing depending upon the type of aid awarded. In general, enrollments are more sensitive to grant awards than to loans or work study.
Differences among income groups	Lower-income students are more sensitive to changes in tuition and aid than are students from middle- and upper-income families.
Differences among races	Black students are more sensitive to changes in tuition and aid than are white students. For Hispanic students, the evidence is more mixed.
Differences between sectors	Students in community colleges are more sensitive to tuition and aid changes than are students in 4-year public colleges and universities.

As noted above, an important issue to be considered when formulating policy is that the majority of these studies analyzed data from the mid-1980s or earlier. All of these data sets were from an era when college tuition, especially at public institutions, was far lower than it is today. If the demand for higher education is curvilinear rather than linear, with higher sensitivity to increases at higher tuition levels, than the student price response coefficients found in the studies reviewed here will be lower than those in effect today. Students today would be more

sensitive to tuition increases or aid cuts than the students who attended college 15 to 25 years ago.

The studies reviewed here also demonstrate the importance of broadening the traditional conception of the "cost of college." Whereas Leslie and Brinkman's review focused on tuition price as the key measure of college costs, many of the studies here extend their analysis by examining how students respond not just to tuition changes or to the net price they pay, but to how that net price is arrived at. Financial aid can have varying effects on college access and choice, and policymakers need to understand how these effects differ for students of different races, incomes, or in different college sectors.

The studies reviewed here demonstrate that college enrollments are more sensitive to increases in grants than in loans. As federal financial aid policy continues its shift from grants to loans, many in the higher education community are increasingly concerned about the impact on college access. In addition, as states move away from their historical commitment to low public tuition levels and toward increasing the responsibility of students for the financing of their postsecondary education, those least able to afford to attend college are likely to be disproportionately impacted by the combined effects of changes in federal and state policy.

The issues addressed in this article deserve further study using enrollment, tuition, and financial aid data from more recent cohorts of college students. Even though many of these studies used samples of students from years later than those reviewed by Leslie and Brinkman, there still is a lack of research on the impact of the most recent rounds of tuition increases and financial aid policy changes since the late 1980s. Such updated studies can help to answer the question of whether recent tuition increases and financial aid cuts have served to restrict access to postsecondary education, especially for those students who have traditionally been underrepresented in colleges and universities. Or more accurately stated, How *greatly* have these changes helped to restrict access? Only by knowing the answers to these questions can policymakers begin to formulate strategies to assure equal opportunity in higher education for all groups.

APPENDIX A

Summary of the Relationship Between Tuition and Enrollment

Authors	Data set	Question Variable	Key Findings
Leslie & Brinkman (1987)	Meta-analysis	\$100 tuition increase, 1983	Mean SPRC for first-time freshmen of -0.7 percentage points
Jackson & Weathersby (1975)	Meta-analysis	\$100 tuition increase, 1974	SPRC of -0.05 to -1.46 points
McPherson (1978)	Meta-analysis	\$100 tuition increase, 1974	SPRC of -0.05 to -1.53 points
Kane (1991)	NLSY	\$1,000 tuition increase, 1988	SPRC of -13 to -15 points
Kane (1994)	HSB	\$100 tuition increase, 1980	SPRC of -0.63 to -1.22 points
Kane (1995)	IPEDS 1980-1992	\$1,000 tuition increase at community colleges, 1991	SPRC of -3.5 points for total public enrollment
	IPEDS 1980-1992	\$1,000 tuition increase at 4-year colleges, 1991	SPRC of -1.4 points for total public enrollment
St. John (1990)	HSB	\$1,000 tuition increase, 1982	SPRC of -2.8 points
Savoca (1990)	NLS72	\$100 tuition increase, 1972	SPRC of -0.49 points
McPherson & Schapiro (1991b)	CPS 1979-1989	\$100 tuition increase, 1979	SPRC of -0.68 points for lower income students
Shires (1995)	California enrollments		Price elasticity of demand of -0.15 at CCC, -0.20 at CSU, and -0.05 at UC
Heller (1996)	IPEDS 1978 to 1993	\$100 tuition increase, 1993	SPRC of -0.36
Rouse (1994)	NLSY	8% tuition increase, 1982	SPRC of -0.60 to -1.00, depending upon sector

NOTE: See section 2 for more information on each study.

APPENDIX B

Summary of the Relationship Between Financial Aid and Enrollment

Authors	Data set	Question Variable	Key Findings
Leslie & Brinkman (1988)	Review		20% to 40% of lower-income and 13% of middle-income enrollments result of BEOGs
Hansen (1983)	CPS 1971 and 1978		Enrollment rate of poorer students relative to richer no greater in 1978 than in 1971
Kane (1994)	CPS 1970 to 1972 & 1973 to 1977		Enrollment rate of poorer students relative to richer no greater in 1973-1977 than in 1970-1972

APPENDIX E (Continued)

Summary of the Relationship Between Financial Aid and Enrollment

Authors	Data set	Question Variable	Key Findings
Manski & Wise (1983)	NLS72		BEOGs increased enrollments of lower-income students by 59%, middle income by 12%, and upper-income by 3%
McPherson & Schapiro 3%(1991b)	CPS 1974 to 1984	\$100 aid increase, 1978	SPRC of 0.70 points for lower-income students
Moore, Studenmund, & Slobko (1991)	Occidental College, 1989	\$1,000 increase in grants, 1989	SPRC of 7.8 points
Moore, Studenmund, & Slobko (1991)	Occidental College, 1989	\$1,000 increase in loans or work study, 1989	No effect
St. John (1990)	HSB	\$1,000 increase in grants, 1982	SPRC of 4.3 points
	HSB	\$1,000 increase in loans, 1982	SPRC of 3.8 points
	HSB	\$1,000 increase in work study, 1982	SPRC of 4.6 points
Jackson (1988)	NLS72		Financial aid recipients were 6.5 percentage points more likely to enroll than non-recipients
Jackson (1988)	HSB		Financial aid recipients were 7.8 percentage points more likely to enroll than non-recipients
St. John & Noell (1989)	NLS72		Probability of enrollment increased for recipients of: Grants — 6.2 points Loans — 10.8 points Work study — 14.9 points Combination — 14.7 points
St. John & Noell (1989)	HSB Seniors		Probability of enrollment increased for recipients of: Grants — 10.1 points Loans — 9.5 points Work study — 11.0 points Combination — 8.2 points
St. John & Noell (1989)	HSB Sophomores		Probability of enrollment increased for recipients of: Grants — 6.2 points Loans — 7.8 points Work study — 9.7 points Combination — 9.5 points

NOTE: See section 3 for more information on each study.

APPENDIX C

Summary of Income, Race, and Sector Effects

Authors	Data set	Question Variable	Key Findings
Leslie & Brinkman (1987)	Review		Tuition sensitivity lessens as income increases

APPENDIX C (Continued)

Summary of Income, Race, and Sector Effects

Authors	Data set	Question Variable	Key Findings
McPherson & Schapiro (1989)	CPS 1974 to 1984	\$100 tuition increase, 1978	SPRC of -0.68 points for lower-income whites; increase in enrollments for middle- and upper-income students
McPherson & Schapiro (1989)	CPS 1974 to 1984	\$100 aid decrease, 1978	No effect on white students of any income level
St. John (1990)	HSB	\$100 tuition decrease, 1982	SPRCs by income quartile: Bottom — 0.34 points 2nd — 0.39 points 3rd — 0.31 points Top — 0.14 points
St. John (1990)	HSB	\$100 grant increase, 1982	SPRCs by income quartile: Bottom — 0.88 points 2nd — 0.35 points 3rd — 0.33 points Top — Not significant
St. John (1990)	HSB	\$100 loan increase, 1982	SPRCs by income quartile: Bottom — Not significant 2nd — 0.53 points 3rd — 0.63 points Top — Not significant
McPherson & Schapiro (1994)	American Freshman Survey		Lower-income students more clustered in community colleges due to tuition increases and aid cuts
Behrman, Kletzer, McPherson, & Schapiro (1992)	NLS72	Tuition increase at in-state 4-year publics	Hispanic and black enrollments in community colleges <i>increase</i> , but no effect on enrollments in 4-year colleges. No effect on white enrollments in community colleges, but enrollments in 4-year colleges <i>increase</i>
St. John & Noell (1989)	HSB Seniors	Effect of receipt of grant	Probability of enrollment increased for: Whites — 8.9 points Blacks — 17.7 points Hispanics — 14.1 points
St. John & Noell (1989)	HSB Seniors	Effect of receipt of loan	Probability of enrollment increased for: Whites — 8.8 points Blacks — 14.5 points Hispanics — Not significant
St. John & Noell (1989)	HSB Seniors	Effect of receipt of combination, including work study	Probability of enrollment increased for: Whites — 7.1 points Blacks — Not significant Hispanics — Not significant
St. John & Noell (1989)	HSB Sophomores	Effect of receipt of grant	Probability of enrollment increased for: Whites — 4.2 points Blacks — 15.0 points Hispanics — 3.8 points
St. John & Noell (1989)	HSB Sophomores	Effect of receipt of loan	Probability of enrollment increased for: Whites — 7.2 points Blacks — 11.2 points Hispanics — 13.1

APPENDIX C (Continued)

Summary of Income, Race, and Sector Effects

Authors	Data set	Question Variable	Key Findings
St. John & Noell (1989)	HSB Sophomores	Effect of receipt of combination, including work study	Probability of enrollment increased for: Whites — 8.1 points Blacks — 18.6 points Hispanics — Not significant
Jackson (1989)	HSB Seniors	Effect of receipt of grant	Probability of enrollment increased for: Whites — 6.3 points Blacks — 11.2 points Hispanics — Not significant
Kane (1991)	CPS 1970 to 1988	Effect of changes in tuition, Pells, and net cost	Blacks more responsive than whites, with gap the largest for tuition sensitivity
Heller (1994)	IPEDS 1984 and 1991	\$100 tuition increase, 1991	SPRC range of -0.35 to -0.58 points for whites and -0.46 to -0.63 points for blacks
Leslie & Brinkman (1988)	Meta-analysis	\$100 tuition increase, 1983	4-year SPRC of -0.6 to -0.7 points; community college SPRC of -0.9 points
Shires (1995)	California enrollments		Price elasticity of demand of -0.15 at CCC, -0.20 at CSU, and -0.05 at UC
Kane (1995)	IPEDS 1980-1992	\$1,000 tuition increase at community colleges, 1991	SPRCs: All publics — -3.5 points Comm. Colleges — -4.7 points 4-year publics — 1.8 points
	IPEDS 1980-1992	\$1,000 tuition increase at 4-year colleges, 1991	SPRCs: All publics — -1.4 points Comm. Colleges — Not signif. 4-year publics — -1.2 points
Rouse (1994)	NLSY	8% tuition increase at community colleges, 1982	SPRC of -0.9 at community colleges, 0.2 at comprehensives, -0.7 overall
	NLSY	8% tuition increase at comprehensive colleges, 1982	SPRC of -0.4 at community colleges, -0.6 at comprehensives, -0.2 overall
	NLSY	8% tuition increase in both sectors, 1982	SPRC of -0.7 at community colleges, -0.3 at comprehensives, -1.0 overall

NOTE: See section 4 for more information on each study.

Notes

¹See Kane (1994) and Hearn, Griswold, and Marine (1996) for some explanations of the reasons for the large public college tuition increases in the 1990s. The consensus opinion is that the increase has been driven by the slowdown in state funding for public higher education.

²Many authors have written about the rise in income inequality in the country during the 1980s and the possible explanations. See, for example, Levy (1988), Levy and Murnane (1992), and Bradbury (1996) for econometric analyses, and Cassidy (1995) and Phillips (1990) for more general descriptive analyses.

³The authors noted that this effect is probably overstated, because most of the 25 studies examined the enrollment only of first-time freshman students. One would expect upper-division students to be less price responsive, because they already have invested in a portion of their postsecondary education and have fewer semesters of tuition left to pay to gain the benefits of attaining a college diploma or other credential.

⁴Two studies had positive SPRCs. Both restricted their analysis to community college students in only a single state (Wisconsin and New York, respectively).

⁵See Leslie and Brinkman (1987, p. 185) for a discussion of some of the problems with the Jackson and Weathersby analysis and its applicability to their own work.

⁶Because attending college can be a substitute for entering the work force, many researchers have hypothesized that unemployment may be positively associated with college enrollment, i.e., as employment possibilities lessen, individuals may be more likely to enter college. A countervailing force is that fewer employment possibilities mean that students and their families have fewer funds for financing a college education. See, for example, Ahlburg, McPherson, and Schapiro (1994), Blakemore and Low (1983), Corazzini, Dugan, and Grabowski (1972), and Jackson (1988).

⁷See Jackson (1988) and St. John and Noell (1989), both described later.

⁸The Fuller, Manski, and Wise (1982) study was an earlier version of the work that led to Manski and Wise (1983), *College Choice in America*.

⁹Although they are loath to admit it, most institutions must loosen their admissions standards as demand lessens. The high percentage of fixed costs in colleges (for such things as physical plant and tenured faculty) requires institutions to maintain enrollment levels even if the quality of students applying for admission declines. See Dembner (1995) for the story of one institution that found itself in this situation.

¹⁰Whereas an SPRC provides an estimate of the percentage change in enrollment for a tuition increase of a fixed dollar amount, elasticities estimate the percentage change in enrollment for a given *percentage* change in tuition.

¹¹Because Rouse uses lower average tuition prices than Leslie and Brinkman (1987), she converted the standard \$100 increase to a percentage increase, which averaged 8%. Thus, her enrollment changes are expressed as a response to an 8% tuition increase.

¹²This example is complicated somewhat by the fact that there is less evidence confirming that tuition changes are symmetrical, i.e., that a \$100 cut in tuition would increase enrollments the same amount that a \$100 rise in tuition would decrease them.

¹³For an excellent review of the literature on this topic, see O'Brien (1992).

¹⁴Earlier programs, such as the Perkins Loan program (created as part of the National Defense Education Act in 1958) and Educational Opportunity Grants (part of the Higher Education Act of 1965), also provided need-based aid. However, the size and scope of these and similar programs were negligible compared to the size of the college-going population until the 1972 reauthorization. Because the BEOGs were not fully funded by Congress until 1974, this year is often used as the beginning of the program. See chapter 4 of Mumper (1996) for a history of the creation of federal financial aid programs.

¹⁵The coefficient of financial aid alone was not statistically significant for all types of institutions, but it was statistically significant when private institutions were examined alone (coefficient of 0.38).

¹⁶St. John's findings on tuition effects were described in section 2.

¹⁷For simplicity of this example the demand curves are assumed to be linear.

¹⁸Again, it is important to note that these relationships are discussed *ceteris paribus*.

¹⁹This study looked at white students only, due to small sample sizes of minority students in the CPS. Students were divided into three income groups: low, medium, and high.

²⁰See, for example, Behrman, Kletzer, McPherson, and Schapiro (1992); Schwartz (1986); and Jackson (1990). Becker (1993) has an excellent explanation of the theoretical link between ability and college entry.

²¹The studies reviewed in this section analyzed the experiences of white, black, and sometimes Hispanic students. Very few student demand studies have examined other racial groups, largely because of small sample sizes in the major cross-sectional data sets.

²²This study also examined students in NLS72, but because of small sample sizes of minorities in this survey, they reported results by race only for the two HSB cohorts.

²³See McPherson and Schapiro (1994) and Frances and Morning (1993) for data on the income distribution of students by sector.

²⁴See National Center for Education Statistics (various years).

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Dual Relationships in Higher Education

Professional and Institutional Guidelines

University and college faculty face complex professional and ethical issues in their ongoing interactions and involvements with students. On the one hand, an appreciation of the powerful positive impact of faculty involvement with students argues in favor of increased interaction outside the classroom (Astin, 1993). On the other hand, obvious concerns about fairness and a growing sensitivity over the potential for exploitation of students caution faculty against personal relationships with their students. Thus, faculty are often encouraged to become increasingly active in advisement, mentorship, and social situations with their students, while simultaneously being cautioned regarding behaviors that are, or might appear to be, exploitative or unjust.

The challenge for faculty stems from the fact that the "faculty role" in relation to students is not a single role. Rather, faculty are called upon to perform complex multiple roles in their relationships with students, including those of research supervisor, instructor, curriculum planner, academic advisor, and mentor (Brown & Krager, 1985). Almost by definition, faculty members engage in what might be described as "multiple professional relationships" with their students in which they function in significant — and significantly different — roles either concurrently or sequentially (Pope, 1991; Sonne, 1994). Moreover, the increasing recognition of the importance of faculty involvement with students (e.g., Astin, 1993; Jacobi, 1991) has encouraged faculty to extend their professional roles into more personal realms and to socialize and interact with students in more informal settings.

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As faculty extend their professional relationships with students outside the classroom, it is not unusual for them to find themselves increasingly involved in more personal relationships as well. For example, in more informal settings faculty may find themselves called upon to advise students about personal as well as academic issues. As faculty socialize with students at university-sponsored or private functions, they may also find themselves forming personal friendship or even intimate relationships with their students and their families. Similarly, as faculty become more involved in the private lives of their students, they may find themselves in financial or business relationships with students or their families that extend well beyond the traditional boundaries of academia (for example, hiring students as baby sitters or house sitters or involving a student in a private business venture). While these types of personal relationships often provide opportunities to further the students' personal and professional development, they also carry very different expectations and obligations than the typical faculty professional roles and may thus give rise to greater and potentially more complex ethical issues (Kitchener, 1988).

The literature of many professions, most notably the mental health professions, has provided extensive discussion of the problems inherent in dual relationships between professionals and their clients (e.g., Keith-Spiegel & Koocher, 1985; Kitchener, 1988; Pope, 1991). One of the key issues in such discussions is that dual or multiple relationships occur when the professional tries to simultaneously fill two or more different roles. Problems arise from such dual relationships when there are conflicts between the demands of the two roles and these conflicting demands result in conflicts of interest and potential exploitation of the nonprofessional member of the relationship (Kitchener, 1988; Pipes, in press). Obvious examples of such exploitative relationships include such situations as a psychotherapist persuading a client to invest in a shopping center development project with him or a divorce lawyer becoming sexually involved with a client.

In contrast to the available literature regarding dual relationships in other professions, however, the ethics of dual relationships in higher education have received little attention (Blevins-Knabe, 1992; Kitchener, 1992). This lack of attention stems no doubt from the inherent multiplicity of roles required by the faculty-student relationship, in which faculty members are concerned with fostering the development of their students, and by the recognition that positive as well as negative consequences derive from this multiplicity of roles. Nonetheless, there appears to be a growing recognition that, as in other professions, certain forms of dual relationships between faculty and students can be problematic in a number of ways.

Thus, while increased interaction with faculty enriches the educational experience for students, the resulting multiple relationships also carry risks for both of them. Because of the inherent power differential between faculty and students, students are usually at greater risk for exploitation as they enter into relationships with faculty that extend outside the classroom. Additionally, faculty engaging in such relationships are also at risk of losing their ability to maintain objectivity in their instructional/evaluative roles and maintain fairness in acting in the best interest of all students (e.g., Feldman-Summers, 1989; Pope, 1991; Sonne, 1994). Moreover, certain types of dual relationships may erode the professional nature of the relationship (Pope, 1991) and may thus undermine the faculty member's effectiveness as a teacher. Here both faculty and student may suffer, but ultimately the student's educational experience is at risk. The line between an appropriate professional faculty-student relationship and one that is exploitative or compromises faculty objectivity is not always clearly drawn, and as a relationship extends into more personal realms and increases in intensity, both potential benefits and risks increase.

To date, much of the attention that has been paid to student-faculty relationships has focused on what might be seen as the extreme negative end of this continuum — where personal relationships evolve into sexual ones. The research that is available on this topic indicates that such relationships occur with some frequency (e.g., Barak, Fisher, & Houston, 1992; Glaser & Thorpe, 1986; Goodyear, Crego, & Johnston, 1992; Lott, Reilly, & Howard, 1982; Maihoff & Forrest, 1983; Metha & Nigg, 1983; Perry, 1983; Robinson & Reid, 1985). For example, in a survey of 807 male faculty, Fitzgerald, Weitzman, Gold, and Ormerod (1988) found that 26% of the 235 respondents reported having sexual encounters with students; in a similar study of 483 male and female psychology professors, Tabachnick, Keith-Spiegel, and Pope (1991) obtained a rate of 11%. Although there was a considerable difference in these rates — no doubt in part due to the inclusion of female faculty in the second survey — both indicate that sexual encounters between faculty and their students are commonplace on our campuses. Moreover, few would question that these relationships have much potential for exploitation, because it is not at all clear whether or not students are in a position meaningfully to provide or withhold consent, given the status and power differentials between them and the faculty. As aptly stated by Wagner (1993), "How many coeds have endured the sexual advances of their teachers out of fear, fascination, or just plain naivete . . . ? And if he won't take the brush-off, then what? Make a scene in the dean's office and get a reputation as a troublemaker? Attempt to disappear? Drop out? Or play along for the duration?"

The extent of the potential for harm arising out of sexual relationships between students and faculty is also being increasingly recognized by the courts, as can be seen in their recent willingness to apply the same prohibitions and standards for defining sexual harassment between employer and employee that exist under Title VII of the Civil Rights Act of 1964 to decide cases involving relationships between students and faculty under Title IX (*Lipsett v. University of Puerto Rico*, as cited in Wagner, 1993). Moreover, one can expect increasing litigation under the antisex bias provisions of Title IX of the Education Amendments of 1972 given the recent Supreme Court decision (*Franklin v. Gwinnet County Public Schools*, 1992, as cited in Wagner, 1993) to allow the courts to make financial awards to student victims. Nonetheless, even in the arena of these most intense and most potentially risky relationships for all involved (students, faculty, and universities), debate continues about the risks and benefits of such relationships and of policies that might restrict them and thus infringe on the rights of individuals to make choices regarding their relationships (e.g., McCurdy, 1993; Mooney, 1993; Wagner, 1993).

Although sexual relationships between faculty and students have received most of the recent attention on university campuses, in the press, and in the courts, one should not ignore the fact that faculty engage in a wide range of other less intense, but nonetheless personal, contacts with students that also may carry risks as well as potential benefits. Thus, although Fitzgerald, Weitzman, Gold, and Ormerod found that 26% of the male faculty members who responded to her survey reported having sexual encounters with students, nonsexual forms of dual relationships were even more common, with 80% of the respondents indicating that they had formed friendships with students, 76% reporting giving personal advice to students, and 21% reporting loaning money to students. The Tabachnick, Keith-Spiegel, and Pope study (1991) similarly found the reported incidence of nonsexual forms of dual relationships to be quite high. For example, 73% of the respondents reported having asked students for small favors like a ride home; 87% reported accepting small gifts (less than \$5 in value); 86% reported accepting students' invitations to parties; 55% reported loaning money to students; and 60% reported they allowed students' likability to affect their grades. Moreover, although these behaviors were reported to occur with some frequency, the respondents' evaluations of the ethicality of these behaviors indicated considerable ambiguity about their appropriateness. For example, although 73% of the respondents indicated that they had asked students for small favors like a ride home, only 8% rated such requests as unquestionably ethical, whereas 37% rated such requests as either unquestionably unethical or as ethical only under rare circumstances. Similarly,

although over 60% indicated that they had allowed the likability of a student to affect their grades, less than 2% saw it as unquestionably ethical, whereas 63% rated it as unquestionably unethical, and an additional 23% indicated it would be ethical only under rare circumstances. The high incidence of certain behaviors that faculty members concurrently evaluate as unethical suggests that they must also perceive salient potential benefits to either themselves or their students in engaging in these behaviors.

Overall, this research highlights the complexity of faculty-student relationships and the lack of clarity about the appropriateness of certain types of relationships. In some sense, this "confusion" is not surprising, for the ethical issues surrounding faculty-student relationships are especially complex. As noted earlier, the faculty role in relation to students actually involves many different roles — instructor, advisor, mentor, to name just a few. Thus, in contrast to a profession such as mental health, where the professional role may be very well defined and circumscribed, the boundaries of the faculty member's professional role are somewhat blurred. The lines between an appropriate professional role and a potentially conflicting second professional role or an exploitative or conflicting personal relationship are not always easily drawn. Faculty in higher education may thus face more complex decisions in their relationships with students; yet, neither the law nor the professional literature seems to offer much guidance to faculty as they make these decisions.

Beyond the professional literature, university faculty have two primary sources for information regarding appropriate professional behavior: codes or guidelines provided by the professional groups to which they belong (groups that are discipline specific and groups that generally serve the higher education community); and policies or guidelines provided by their particular institutions. In an attempt to understand more fully what guidance is available to faculty in structuring their relationships with students, we conducted a two-phase study that examined these two sources of information: Phase I consisted of a content analysis of a sample of professional ethical codes, and Phase II of a survey of U.S. colleges and universities.

Phase I: Examination of Professional Codes

Method. Fifty-nine groups were identified as professional organizations to which faculty might be likely to belong. These 59 organizations were selected from listings of recognized accrediting bodies and higher education associations in Peterson's 1995 *Register of Higher Education*. All listed groups representing academic disciplines, such as philosophy,

political science, nursing, or music, were included as well as general higher education associations, such as the American Association of University Professors. Groups representing non-faculty university groups, such as registrars or student affairs personnel, were excluded.

The identified 59 professional groups were then contacted by phone and/or in writing and asked whether or not their group had written guidelines that provided information to faculty in their discipline regarding the nature of faculty-student relationships. We suggested that such guidelines might be included in a code of ethics, an accreditation manual, or perhaps a policy statement.

Of the 59 groups contacted, 23 indicated that their organization did not have written guidelines that addressed faculty roles, whereas 36 groups indicated that they had such written guidelines and mailed them to us. In two cases, associations provided two documents and the content of both documents was combined before they were reviewed. Of the 38 documents, 13 can be best described as codes of ethics, 19 as accreditation manuals, and 6 as more general policy statements than codes or guidelines. The general professional areas of the documents examined were: general higher education organizations ($N = 4$), health sciences professions ($N = 13$), mental health professions ($N = 5$), all other discipline-specific groups ($N = 14$).

The documents from the 36 associations were reviewed to determine the extent to which they addressed faculty roles and what, if any, prescriptive or prescriptive guidelines were provided that related to professional roles and relationships. First, two independent readers read the documents and highlighted all segments that addressed teaching obligations or responsibilities, research roles, and professional relationships with students, colleagues, employees, or clients. Next, the content of the highlighted segments was classified in terms of whether or not there was discussion of the following types of behavior: (1) general ethical obligations to others; (2) dual relationships or conflicts of interest that have a professional or financial base; (3) dual relationships or conflicts of interest that have a personal but not sexual base; (4) dual relationships or conflicts of interest that have a sexual base; (5) statements regarding sexual harassment. Each of these statements was then further classified in terms of whether or not the statement referred specifically to (1) colleagues, (2) clients, (3) employees, or (4) students. In addition, each document was searched for any mention of the obligations that instructors had to their students in general or any mention of research responsibilities of faculty. A second rater then independently classified the identified segments according to the same categories. Interrater agreement in these classifications was 92.1% overall. Within specific categories and

subcategories, interrater agreement was over 80% for all ratings except the category that rated whether or not the codes contained a "statement of general ethical obligations to others" and the category that rated whether or not the codes contained a "statement of general ethical obligations to students." On these two items, interrater agreement was 78% and 69%, respectively. In both cases the disagreements occurred because the second rater was less likely to categorize the codes as containing such general statements. The data used in the following analyses and discussion were the more inclusive ratings from the first rater.

Results. The results revealed that surprisingly little content of these statements was related to issues surrounding faculty roles. For example, only 20 (56%) of the 36 organizations provided documents that commented on teaching responsibilities in any manner; only 14 (39%) specified guidelines regarding research responsibilities for members of the profession; and only 19 (53%) of the organizations provided documents that included statements regarding the general ethical obligations of their members to others (for example, statements such as to avoid harm or to respect others).

Although 20 (56%) organizations provided documents that addressed potential risks and conflicts of interest that can arise when professionals enter into dual relationships with others, most of these concerns were with dual relationships between members of the profession and their clients and colleagues, and most were concerned with the risks associated with professional or financial gains from potentially exploitative dual relationships. Only 7 (19%) of the groups provided specific guidelines for their members regarding the risks involved in any of the various forms of dual relationships between faculty and their students. Significantly, 4 of these groups were professional groups for mental health professions, where one might expect heightened sensitivity to issues of conflicting relationships, and 2 of these groups were professional groups representing the higher education community, where one might expect heightened sensitivity to student issues.

In terms of the type of dual relationships addressed, only 9 groups (25%) provided documents that prohibited sexual harassment in general terms or in relation to clients or colleagues, and only 7 groups (19%) specifically proscribed sexual harassment of students. Non-harassing sexual/romantic relationships were less clearly proscribed. Seven organizations (19%) provided documents that addressed the risks of such sexual/romantic dual relationships with clients, and 5 groups (14%) specifically addressed such relationships between students and faculty. It is again noteworthy that 4 of these 5 documents came from mental health associations.

In terms of problems associated with nonfinancial and nonsexual personal dual relationships, 5 groups (14%) noted that such relationships were problematic, usually in regard to clients ($N = 3$, or 8%) or students ($N = 4$, or 11%). Of the 4 associations who commented on the problems associated with such dual relationships with students, 3 of these groups were mental health associations.

In summary, the content analyses of ethics codes, policy statements, and accreditation manuals indicated that little guidance is provided by professional associations to their membership regarding faculty roles and relationships in regard to their students. Where guidance is provided, it tends to focus on the most extreme forms of multiple relationships, which involve either sexual or financial exploitation in the faculty-student relationship. With the exception of a few professional associations for mental health providers, essentially none has directed any attention toward the risks associated with other personal relationships between faculty and their students.

One possible explanation for the lack of such attention may, however, stem from a perception on the part of professional associations that matters pertaining to faculty-student relationships are beyond their purview and are rightfully dictated by the institutions employing and educating these individuals. Support for this interpretation comes from the following statement of the American Association for University Professors:

In the enforcement of ethical standards, the academic profession differs from those of law and medicine, whose associations act to assure the integrity of members engaged in private practice. In the academic profession the individual institution of higher learning provides this assurance and so should normally handle questions concerning propriety of conduct within its own framework by reference to a faculty group. (American Association of University Professors, 1987)

The recent national attention to sexual harassment in particular has led the American Association of University Professors to make a more explicit prohibition against "any exploitation of students for . . . private advantage" (American Association of University Professors, 1995a, p. 63) and to acknowledge that

sexual relations between students and faculty members with whom they also have an academic or evaluative relationship are fraught with the potential for exploitation. The respect and trust accorded a professor by a student, as well as the power exercised by the professor in an academic or evaluative role, make voluntary consent by the student suspect. . . . In their relationships with students, members of the faculty are expected to be aware of their professional responsibilities and avoid apparent or actual conflict of interest, fa-

voritism, or bias. When a sexual relationship exists, effective steps should be taken to ensure unbiased evaluation or supervision of the student. (American Association of University Professors, 1995b, p. 64)

Nonetheless, the American Association of University Professors continues to place the ultimate responsibility at the level of the university, stating that it is "incumbent upon a university or college to make plain the general policy . . . with an established procedure for its implementation" (American Association of University Professors, 1995a, p. 62).

Phase II: Survey of Colleges and Universities

The extent to which academic institutions take on this responsibility was examined in a national survey of U.S. institutions of higher education. In addition to assessing the general status of policies and procedures regarding faculty-student relationships, the survey also allowed for an examination of the relationship between particular institutional types (i.e., as defined by Carnegie status, enrollment size, public versus private nature, religious versus nonreligious affiliations) and policies or attitudes.

Sample and method. To obtain a representative sample of institutions of varying types and sizes, 400 schools (100 each at the research, the doctoral, the master's, and the bachelor's institution levels) were randomly selected from the annual listing of American colleges and universities by the Carnegie classification published by the *Chronicles of Higher Education* (Evangelauf, 1994). Because of the unequal distribution of institutional types, this selection process tapped 80% of the 125 research institutions, 90% of the 111 doctoral institutions, 19% of the 532 master's-level institutions, and 16% of the 633 bachelor's-level institutions. A brief two-page survey was sent to the chief academic officer at each institution.

A total of 239 academic officers returned the surveys on behalf of their institutions, a response rate of just under 60%. Respondent institutions were fairly equally distributed across the four Carnegie classifications: 63 institutions (26%) were research institutions; 54 institutions (23%) were doctoral granting institutions; 62 institutions (26%) were master's-level institutions; and 60 institutions (25%) were bachelor's-level institutions. About half of the respondent institutions (114 or 48%) were public and half were private (123 or 51%). Both religious and nonreligious institutions were well represented (77 institutions, or 32%, were affiliated with religious groups, 147 institutions, or 62%, were nonreligious, 15 institutions, or 6%, did not specify whether or not they were affiliated with a religious group), as were institutions of varying

sizes (40 institutions, or 17%, had over 20,000 students; 51 institutions, or 21%, had 10,000 to 20,000 students; 51 institutions, or 21%, had 4,000 to 10,000 students; 72 institutions, or 30%, had 1,000 to 4,000 students; 23 institutions, or 10%, had under 1,000 students; and 2 institutions did not report their enrollment size).

The survey asked for some basic demographic information regarding the institution (Carnegie class, enrollment size, nature of institution) and specific information about both implicit and published policies regarding employment, business relationships, friendships, and sexual relationships between faculty and students. The survey also asked respondents if their institutions had experienced recent changes in policies and attitudes in these areas and whether there had been any recent lawsuits alleging violations in these areas.

Results. The first two survey questions asked about published policies prohibiting or implicitly understood policies discouraging certain types of faculty-student relationships. As can be seen in Table 1, policies are most consistent in the area of sexual harassment. In compliance with Federal Guidelines, 234, or nearly 98% of the private, and 100% of the public institutions reported published policies prohibiting sexual harassment of students. Of the five schools not reporting published policies (four actually indicated no written policy, and one did not respond to the item), all reported that they had implicitly understood policies discouraging harassment. A fairly large number of institutions also reported published policies prohibiting (132 or 55%) or implicit policies discouraging (78 or 33%) sexual relationships between faculty and students. In-

TABLE 1

Number of Institutions with Published and/or Implicit Policies Regarding Faculty-Student Relationships

Type of Relationship	Number of Institutions with Policies		
	Prohibiting	Discouraging	Neither
Employment of students outside university	18 (7.5%)	23 (9.6%)	187 (78.2%)
Business relationships with students	21 (8.8%)	35 (14.6%)	173 (72.4%)
Friendships with students	30 (12.6%)	35 (14.6%)	158 (66.1%)
Sexual harassment of students	234 (97.9%)	4 (1.7%)	0 (0.0%)
Sexual relationships with students	132 (55.2%)	78 (32.6%)	21 (8.8%)

NOTE: Although there were 239 total respondents, the number of respondents to each question may not equal 239 because of missing data. Percentages given in parentheses represent the percentage of total respondents rounded to the nearest tenth of a percent.

stitutions seemed less likely to prohibit or discourage other types of faculty-student business or personal relationships. Even in these areas, however, a sizable minority of schools reported either prohibiting through written policies or implicitly discouraging employment of students outside the university (41 or 17% of respondents), business relationships with students (56 or 23% of respondents), and friendships with students (65 or 27% of respondents).

To examine differences in these policies across the institutional characteristics of Carnegie classification, size, public or private status, and religious or nonreligious affiliation status, a series of chi-square analyses were conducted. Because of the large number of analyses, the 0.001 confidence interval was employed in evaluating significance. Given this conservative test, none of the analyses indicated the presence of significant differences as a function of institutional characteristics on these survey items. Thus, the presence or absence of formal and informal policies prohibiting or discouraging faculty-student relationships did not appear to vary systematically across institutions of different types or sizes.

In addition to asking respondents to indicate whether certain types of relationships were prohibited or discouraged, the survey also asked respondents to indicate whether or not their "institutions encouraged" faculty-student relationships in four areas. Responses to this question are summarized in Table 2. As might be expected, a fairly large number of institutions reported encouraging employment of students within the university (170 or 71% of respondents); however, few reported encouraging either employment outside the university (20 or 8%) or other business relationships with students (15 or 6%). Somewhat surprisingly, a

TABLE 2

Number of Institutions Reporting that They Encourage Certain Types of Student-Faculty Relationships.

Type of Relationship	Does your institution encourage. . . ?	
	Yes	No
Employment of students within the university	170 (71.1%)	62 (25.9%)
Employment of students outside the university	20 (8.4%)	204 (85.4%)
Business relationships with students	15 (6.3%)	212 (88.7%)
Friendships with students	132 (55.2%)	86 (36%)

NOTE: Although there were 239 total respondents, the number of respondents to each question may not equal 239 because of missing data. Percentages given in parentheses represent the percentage of total respondents rounded to the nearest tenth of a percent.

large number of institutions reported encouraging friendships (132 or 55%). It should be noted, however, that the ambiguity of the term friendship posed some difficulties for respondents; 21 of the respondents did not answer this question, and 15 respondents wrote spontaneous comments either questioning the definition of friendship ("What do you mean by this?") or clarifying how they are interpreting friendship. Indeed, the term "friendship" may encompass a wide range of relationships, from intimate personal relationships to more professional collegial or mentoring relationships. This ambiguity is further highlighted by the fact that 35 respondents reported both prohibiting or discouraging *and* encouraging friendships. Thus, it is difficult to know exactly what respondents meant when they indicated that their institutions encouraged friendships. The informal comments offered by some respondents suggested that many were referring to mentoring relationships that extend beyond the classroom yet maintain appropriate professional boundaries. There was no evidence that the encouragement of friendships, or employment and other business relationships, varied systematically across institutions of varying sizes or types (chi square analyses did not reach significance at the 0.001 level).

To gather information about changes in recent years, two survey questions asked respondents to indicate whether or not their institution's *policies* and *attitudes* regarding faculty-student relationships had changed over the past five years. Table 3 presents a summary of responses to these questions. The most notable changes in both policies and attitudes have occurred in the areas of sexual harassment and sexual

TABLE 3

Number of Institutions Reporting Changes Over the Past Five Years in Policies and Attitudes Regarding Student-Faculty Relationships

Type of Relationship	Policies		Attitudes	
	Yes	No	Yes	No
Employment of students outside the university	18 (7.5%)	211 (88.3%)	21 (8.8%)	209 (87.4%)
Business relationships with students	21 (8.8%)	208 (87%)	18 (7.5%)	211 (88.3%)
Friendships with students	24 (10.0%)	208 (87%)	51 (21.3%)	179 (74.9%)
Sexual harassment of students	170 (71.1%)	67 (28%)	126 (52.7%)	108 (45.2%)
Sexual relationships with students	105 (43.9%)	126 (52.7%)	115 (48.1%)	118 (49.4%)

NOTE: Although there were 239 total respondents, the number of respondents to each question may not equal 239 because of missing data. Percentages given in parentheses represent the percentage of total respondents rounded to the nearest tenth of a percent.

relationships; 170 respondents (71%) reported changes in policy, and 126 respondents (53%) indicated changes in attitudes in the area of sexual harassment, whereas 105 respondents (44%) reported changes in policies, and 115 respondents (48%) reported changes in attitudes regarding sexual relationships. A smaller number reported changes in policies (24 or 10%) and attitudes (51 or 21%) regarding friendships with students. In the areas of employment of students outside the university and business relationships with students, less than 9% of the respondents reported changes in policies and attitudes. Chi square analyses, however, provided evidence that changes in these areas may vary according to type of institution. More specifically, research institutions seemed more likely to report policy changes regarding employment of students outside the university, $X^2(3, N = 229) = 19.29, p < 0.001$, and business relationships with students, $X^2(3, N = 229) = 17.82, p < 0.001$, than other types of institutions (see Table 4).

Finally, to provide some information about problems in faculty-student relationships, the survey asked respondents to indicate whether or not their institutions had experienced lawsuits in these areas. Table 5 summarizes responses to this question. Not surprisingly, lawsuits occurred most frequently in the area of sexual harassment (59 or 25% reported lawsuits), followed by sexual relationships (28 or 12% reported lawsuits). Although lawsuits were much less likely to occur in other areas, a handful of institutions did report lawsuits over friendships (4 or 2%) and business relationships (3 or 1%), and one school reported a lawsuit involving employment of a student outside the university.

Because of the small number of lawsuits in the final three areas, comparisons across types of institutions were not possible. However, in the areas of sexual harassment and sexual relationships, chi square analyses indicated that the experience of problems in these areas did vary across

TABLE 4

Frequency of Reported Changes in Policies Regarding Employment and Business Relationships with Students at Different Types of Institutions

Type of Institution	Type of Policy Change			
	Outside Employment		Business	
	Yes	No	Yes	No
Research	12	46	13	45
Doctoral	0	50	1	49
Masters	4	57	5	56
Bachelors	2	58	2	58

TABLE 5

Number of Institutions Reporting Lawsuits Regarding Faculty-Student Relationships

Type of Relationship	Experienced Lawsuits	
	Yes	No
Employment of Students Outside University	1 (0.4%)	233 (98.3%)
Business Relationships with Students	3 (1.3%)	232 (97.1%)
Friendships with Students	4 (1.7%)	232 (97.1%)
Sexual Harassment of Students	59 (24.9%)	177 (74.1%)
Sexual Relationships with Students	28 (11.8%)	209 (87.4%)

NOTE: Although there were 239 total respondents, the number of respondents to each question may not equal 239 because of missing data. Percentages given in parentheses represent the percentage of total respondents rounded to the nearest tenth of a percent.

different types of institutions (see Table 6). Public institutions were more likely to report lawsuits than private institutions for both sexual harassment, $X^2(1, N = 234) = 11.49, p < 0.001$, and sexual relationships, $X^2(1, N = 235) = 17.61, p < 0.001$, as were larger universities, $X^2(4, N = 234) = 42.66, p < 0.001$ and $X^2(4, N = 235) = 28.25, p < 0.001$, and more research oriented universities, $X^2(3, N = 236) = 33.38, p < 0.001$ and $X^2(3, N = 237) = 21.11, p < 0.001$. Religious institutions (which are, of course, private) were also less likely to experience lawsuits related to sexual relationships, $X^2(1, N = 222) = 13.02, p < 0.001$. These findings are not surprising, given that public institutions tend to be larger than private ones, $X^2(4, N = 235) = 91.52, p < 0.001$, and public institutions are more likely to be classified as research institutions, $X^2(3, N = 237) = 44.19, p < 0.001$. Simply on the basis of size of student body, these larger public research institutions have increased opportunities for problems to occur in faculty-student relationships.

Discussion

The purpose of this study was to determine what guidance is available to assist university faculty in structuring their relationships with students. More specifically, we focused on two potential sources of guidance: professional codes and institutional policies. In essence, the data supported what we had suspected based on our initial examination of the literature in higher education: namely, little guidance is available. Neither professional codes nor institutional policies address faculty-student relationships in a comprehensive fashion.

TABLE 6

Frequency of Reported Lawsuits Regarding Sexual Harassment and Sexual Relationships at Different Types of Institutions

Type of Institution	Number Reporting Lawsuit	
	Sexual Harassment	Sexual Relationship
Research	30	16
Doctoral	14	7
Masters	13	5
Bachelors	2	0
Over 20,000	22	12
10,000–20,000	20	11
4,000–10,000	11	3
1,000–4,000	4	2
Under 1,000	2	0
Public	40	24
Private	19	4

The primary focus to date in terms of faculty-student relationships has clearly been in the areas of sexual harassment and sexual exploitation. In the few instances where codes commented on faculty-student relationships, these were the areas most frequently addressed. More importantly, 98% of the survey respondents reported that their academic institutions had policies prohibiting sexual harassment, and another 55% reported published policies prohibiting sexual relationships.

Compared to findings of previous research (Robertson, Dyer, & Campbell, 1988), the present results suggest that both public and private schools have made progress in addressing, at a policy level, the problem of sexual harassment. No doubt this progress stems in part from the adoption of laws (such as Title VII and Title IX) mandating that publicly funded schools have sexual harassment policies and procedures and the application of these laws to faculty/ student relationships (e.g., *Franklin v. Gwinnet County Public Schools*, and *Lipsett v. University of Puerto Rico*). It also appears, however, that a number of schools are extending prohibitions on sexual harassment to the general area of sexual relationships between faculty and students (McCurdy, 1993; Mooney, 1993). Because the survey asked only about the presence or absence of policies, the exact nature of these policies regarding sexual relationships is not clear. However, the mere presence of such policies suggests that universities are becoming more aware of the potential for ethical and legal problems associated with such intense, personal relationships between faculty and their students. Many respondents did indeed report changes in policies and attitudes regarding both sexual harassment and sexual re-

lationships during the last five years. Some spontaneously commented on changes such as "increased awareness" or "greater sensitivity."

On the negative side, the current findings underscore the need for such policies; sexual harassment of students and sexual relationships with students were by far the areas of faculty-student relationships where lawsuits were most frequently experienced. Thus, in developing policies and striving for increased awareness, universities may be responding both to legal mandates and to an increased recognition of the potential for problems in these areas. Scriven (1982) has stated that "professorial ethics has far too long been part of the invisible environment of the academy; like the air we breathe, it was taken for granted until trouble began" (p. 309). Our data certainly suggest that this has been, and may continue to be, the case regarding faculty-student relationships.

There is evidence, however, from the survey data obtained from senior academic officers that universities are beginning to attend more broadly to faculty-student relationship issues. A small percentage of schools (7% to 12%) reported published policies that prohibited other types of dual relationships, such as employment outside the university, other business relationships, or friendships. A similar percentage reported implicit policies discouraging such relationships. However, our data also highlight the complexity of the issues and the many "gray areas" that do exist in the area of faculty-student relationships. For example, some schools encouraged employment of students outside the university, over half the schools reported "encouraging" friendships, and some schools actually reported both "encouraging" and "discouraging" friendships. Several respondents directly noted the difficulty in developing policies regarding faculty-student relationships and reported attempting to address these areas through more general "conflict of interest" guidelines. Moreover, if the obvious ambiguity and lack of consensus over the benefits and risks of such relationships makes legislation of specific standards difficult, one can only imagine the level of confusion individual faculty members might experience in trying to determine which courses of action are appropriate in their relations with individual students. One can easily envision, for example, how offering a job to a needy student might arise out of a professor's desire to help the student obtain the financial means to remain in school. At the same time, the student can be potentially exploited in this situation if he or she feels in some way coerced to accept this position in lieu of another position that might have more financial benefits or more opportunity for advancement. In the same view, a faculty member may be well motivated by a desire to provide personal support to her students when she invites them to her home for dinner but may in fact be interfering with time that

the students would have preferred to have spent studying or engaged in some other activity. The lack of sensitivity to such potential conflicts of interest within the university community may result in situations in which faculty engage in such activities without even being aware of the potential risks for exploitation involved.

Clearly, faculty have a powerful impact on the lives of their students. Few would question that faculty involvement with students is a critical part of the university experience and may significantly enrich the quality of students' learning. Because of the important role faculty play in their students' lives, it is not possible, nor would it be desirable, to legislate all types of faculty-student relationships. As noted earlier, faculty engage in many varied professional roles in their interaction with students, and the line between an appropriate professional relationship that provides potential benefits to the student's development and a potentially exploitative one is not always easily drawn. Our somewhat confusing data regarding friendship policies underscores the difficulty in drawing boundaries. In fact, some respondents made spontaneous comments that directly referred to problems in distinguishing between a close mentorship relationship and a friendship. Nonetheless, the difficulties in making these distinctions and setting appropriate boundaries should not stop us from addressing the ethical issues involved. In fact, it is precisely because of these difficulties that these issues surrounding faculty-student relationships require greater attention so that we can become more aware of those situations that may provide greater potential for benefit and risk.

Two recommendations follow from this analysis. First, more research on faculty-student relationships in higher education is needed. Such research may focus on identifying problem areas, clarifying faculty and student attitudes regarding various types of relationships, and understanding, from the perspective of faculty and students, the risks and benefits associated with different types of relationships. Second, greater efforts to educate and sensitize faculty to ethical issues associated with faculty-student relationships are needed. The efforts may involve greater discussion of faculty-student relationship issues in the professional literature as well as educational programs aimed at current and future university faculty. Our educational efforts may draw not only on the evolving research, but also on literature from other professions where issues surrounding professional relationships have received greater attention. As already noted, for example, the mental health professions have clearly elucidated the issues and problems associated with dual relationships between therapist and client. Many of these ideas and guidelines from this literature may be extended to student-faculty relationships and adapted to the unique circumstances of the educational setting (e.g.,

Blevins-Knabe, 1992; Kitchener, 1992; Langa, 1992). The goal, of course, is not to eliminate all dual relationships between faculty and students or even to develop strict guidelines that legislate which forms of relationship are appropriate and which are not. Rather, the goal is to educate faculty regarding the complex ethical issues involved and to create an atmosphere of greater sensitivity to the potential risks and benefits that arise from their relationships with students that extend beyond the classroom so that they may make better-informed decisions as they attempt to balance multiple roles and responsibilities and develop positive, constructive relationships with their students.

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Alternative Inquiry Paradigms, Faculty Cultures, and the Definition of Academic Lives

Introduction and Context

The rise of alternative inquiry paradigms has provoked controversy and discord among scholars. The emergence of critical and interpretive scholarship has caused them to perceive fluctuating "in" and "out" groups. Shared paradigms separate and define scholars in the same manner as disciplines, but along different, and sometimes less apparent, lines. With the rise of new paradigms, particularly over the past two decades, scholars working in the same university departments increasingly find themselves grounded within quite different intellectual traditions and distinct academic cultures. Scholars working in different paradigms view the purposes of their work differently, apply different evaluative standards, rely upon different methods and frameworks, and accept different types of values. With the evolution of new paradigms, "culture wars" have arisen in much of academe, particularly in the social sciences and humanities, as well as in related professional fields. Given the impact of the friction among scholars upon institutions, scholarship, and professional lives, higher education scholars must come to understand the dimensions and sweep of the discord (Weiland, 1995; Lincoln, 1992).

In describing this intellectual scene, researchers have focused on the theoretical and philosophical bases of alternative paradigm scholarship, which includes varieties of critical theory or models based upon

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hermeneutics, phenomenology, structuralism, and so on. They also have continued to analyze the conceptual foundations of work within the established postpositivist paradigm. Few have explored what ensues, however, when new ways emerge of viewing what we can understand about the world and how we can understand it. In other words, even though scholars have focused considerable attention upon the increasingly pluralistic scholarly output in various academic fields and have offered some comment upon the emerging pluralistic professional environment that results from paradigm changes, they have paid only scant attention to the effects upon the individual scholars involved (Collier, 1993; Delgado, 1993; Post, 1992; Levinson & Balkin, 1991; Posner, 1987; Kissam, 1986; Allen, 1983).

In response I explore in this study how paradigm choices influence the professional lives of scholars, particularly alternative paradigm scholars but also those who work in conventional paradigms. I focus upon a single discipline, law.¹ I adapt a social science-based typology of paradigms to law and suggest where my findings might extend to other academic fields, particularly those in the social sciences. The research literature on faculty culture indicates that scholars work within several cultures concurrently, including those defined by the discipline, institution, profession, and society (Austin, 1990; Tierney & Rhoads, 1993). I suggest that scholars, including law faculty, work within an additional culture determined by their inquiry paradigm. In turn, paradigm culture, in conjunction with the other cultures, shapes the overall climate within which individual scholars work. For alternative paradigm scholars, their paradigm influences their daily lives and scholarly careers in both positive and negative ways.²

My exploratory study aims to improve understanding of the overall faculty culture that defines the debates that have accompanied the advent of critical and interpretive inquiry. Advancing substantive arguments within disciplines, including those that emerge from paradigmatic differences, has long occupied the attention of scholars, particularly those in law. Improving our understanding of the social and cultural factors that influence these debates in several disciplines — the connection between increasing discord and the advent of alternative inquiry paradigms — poses an appropriate and engaging set of questions for the higher education scholar. Paradigmatic differences, for instance, often coexist with identity-based differences among faculty, but paradigm issues may be less apparent than those of gender, race, ethnicity, and sexual orientation. In other words, we may perceive, incorrectly, variance in basic assumptions about the world and research about it to be solely identity-based divisions (Eskridge & Peller, 1991; Kissam, 1986). Simi-

larly, the discipline is more conspicuous than the paradigm and is the construct through which we most often consider knowledge production (Becher, 1989). The paradigm, however, is equally crucial if we are going to understand the settings within which inquiry transpires in the many disciplines. Both generate distinct cultures and climates, but the paradigm is too often overlooked in the study of scholars and scholarship.

Literature Review

Kuhn (1969) defines paradigms, most broadly, as the framework within which "normal science" — the accepted work of a group of scientists conducted across accepted or model problems and solutions — operates. Kuhn contends that throughout the history of science, normal science eventually produces anomalies that the prevailing paradigm cannot explain. These anomalies violate "the paradigm-induced expectations that govern normal science" (Kuhn, 1969, p. 52) and prompt scientists to search for a new paradigm that better explains anomalies and enables a new phase of normal science. These transitions, or "scientific revolutions," are not necessarily smooth. Established scientists within a discipline are often reluctant to abandon their investment in a particular paradigm, instead dismissing the anomalies as counter-instances while supporters of the new paradigm seek recognition (Kuhn, 1969). "The proponents of competing paradigms practice their trades in different [conceptual] worlds" (Kuhn, 1969, p. 150). Additionally, "significant shifts [occur] in the criteria determining the legitimacy both of problems and of proposed solutions" (Kuhn, 1969, p. 109). A "paradigm revolution," therefore, is ongoing within contemporary scholarship in several academic fields, including law, as proponents of critical theory and interpretive models increasingly assert their influence.³ These alternative paradigm scholars are working in a distinct professional environment, although in the same discipline and at the same institutions as their traditional paradigm colleagues.

Like paradigms, disciplines produce and embody a culture. Disciplines determine the substantive knowledge with which scholars work, how they organize that knowledge, how they may draw on other disciplines, what types of work their colleagues value, and the language and symbols they use (Lattuca & Stark, 1995; Dressel & Marcus, 1982). Paradigms are belief systems about questions of reality, truth, objectivity, and method that cut across disciplinary boundaries. These are the fundamental assumptions that scholars bring to their work and cause them to approach inquiry or argument in very particular ways (Guba, 1993).

Several writers have attempted to capture the meaning of "culture." Cultures are variously defined as the shared philosophies, ideologies, values, assumptions, expectations, attitudes, and norms shared within a community (Kilmann, Saxton, & Serpa, 1985; Peterson & Spencer, 1990); the collective, mutually supporting patterns of norms that guide behavior of individuals or groups (Kuh & Whitt, 1988); tacit understandings about what is important (Foote, Mayer, & Associates, 1968); webs of significance spun by humans (Geertz, 1973); patterns of basic assumptions invented, discovered, or developed in learning to cope with problems (Schein, 1985); or the shared pattern of meanings that holds a group together (Siehl, 1985; Peterson & Spencer, 1993).

Faculty work occurs in at least four cultures concurrently, according to Austin (1990): (1) the academic profession,⁴ (2) the academy as an organization,⁵ (3) the discipline, and (4) the institution type. Tierney and Rhoads (1993) generally concur, suggesting the presence of national, professional, disciplinary, and institutional cultures. The literature on faculty cultures, however, has not adequately represented the paradigm as a specific culture that contributes to the shaping of faculty culture overall. Like the other components of faculty culture, paradigms represent deeply incorporated assumptions and values that guide behavior among faculty.

Kuh (1993) suggests the importance of considering two interpretive frames other than culture in understanding particular campus environments: (1) ecology, defined as the physical and emotional environment on a campus that shapes individuals and is shaped by them, and (2) climate, which includes how individuals experience their institutions and their perceptions of organizational functioning and sense of commitment, satisfaction, and belonging. Peterson and Spencer (1990) also distinguish climates from cultures. Climates are common perceptions of attitudes toward and feelings about the current patterns or atmosphere within professional life that are less embedded and enduring and more malleable than cultures.

Conceptual Framework

In order to structure comparisons among the experiences of legal scholars working with different paradigmatic assumptions, I adapt the typology of paradigms within the social sciences posed by Lincoln and Guba (1994) to legal scholars and legal scholarship. Legal scholars work within the same inquiry paradigms and often with the same conceptual tools as scholars in other disciplines, particularly those in the social sciences. Becher (1989) suggests that law is a soft-applied academic field,

like education or other applied social science disciplines. Scholars in the soft-applied disciplines are functional and utilitarian in their uses of knowledge, concern themselves with the enhancement of professional practice, work toward protocols and procedures, and frame recommendations to those who make decisions. Disciplinary culture in the soft-applied academic fields is outward-looking, dominated by intellectual fashions, and power-oriented. None of this is to suggest that several characteristics do not mark and differentiate legal scholarship, but I do want to note its obvious parallels with the social sciences that allow for the application of the social science-based typology to law.⁶

In their several works describing and championing the most recent "scientific revolution" in the social sciences — the emergence of naturalistic (a.k.a. interpretive or constructivist) methods — Lincoln and Guba employ Kuhn's concept of paradigms as their foundation. They suggest that scholars adopt assumptions — based on binary choices — in three areas that classify them into paradigm-based groups. The first assumption that each scholar must make is ontological. One must either assume that there is a single reality or absolute truth that the researcher can discover or that reality and truth are contingent upon what individual people necessarily construct. The same holds for epistemological assumptions. Scholars adopt one of two postures toward the proper relationship between the researcher and the phenomenon being studied. They either believe that one can be objective in the search for some truth or that values necessarily influence any investigation. The third binary assumption all scholars make concerns the appropriate way to go about finding what can be learned about the world. They must decide whether one set of methods (marked by emerging designs, purposeful sampling, inductive analysis, etc.) or another (marked by a priori designs, random sampling, and deductive analysis, etc.) are consistent with their ontological and epistemological assumptions.

Lincoln and Guba organize scholars into four paradigms based upon these ontological, epistemological, and methodological assumptions. The first group, positivists, argue that reality exists and that they can predict and control it as objective researchers through testing and verifying questions and hypotheses, often through using experimental and manipulative methods. The second group, postpositivists, do not abandon the idea that there is a single reality but simply accept that science cannot ever fully apprehend it. They view objectivity in the same manner. Postpositivists assume that it is impossible for the researcher to be truly objective, but hold that objectivity should nonetheless be the standard to which the researcher holds himself or herself. Consistent with both of these beliefs, postpositivists broaden the narrow methodologies that the

positivists favor, sometimes drawing upon qualitative methods (Denzin & Lincoln, 1994; Phillips, 1990; Greene, 1990; Barnes, 1990; Guba, 1990a; Guba, 1990b; Knorr-Cetina, 1981; Hesse, 1980; Cook & Campbell, 1979; Popper, 1963). The third group, critical scholars, submit that scholars cannot divorce values from inquiry and maintain that scholarship should influence specific social change. They work toward a single, apprehensible reality but believe it is shaped over time by social values, and are interested in critique, transformation, and emancipation (Lincoln & Guba, 1994; Kincheloe & McLaren, 1994; Nielson, 1990; Guba, 1990a; Popkewitz, 1990; Lather, 1986; Roman & Apple, 1990; Hutchinson, 1989; Anderson, 1989). The fourth group, interpretive scholars, base their work on understanding multiple realities and believe that the scholar creates, rather than discovers, findings using hermeneutical, phenomenological, and structuralist methodologies (Schwandt, 1994; Erlandson, Harris, Skipper, & Allen, 1993; Steier, 1991; Nielson, 1990; Guba & Lincoln, 1988; Angus, 1986; Wachterhauser, 1986; Hermann, 1982; Bauman, 1978; Geertz, 1973).⁷

There are two significant complications in adapting the social science typology to legal scholars and legal scholarship. The first is that legal scholars commonly engage in both normative work ("what something should be") and empirical work ("what something might be"), whereas social scientists focus chiefly upon the latter. The typology accommodates empirical legal scholarship rather straightforwardly, given its similarities with empirical work in the social sciences. It also is broad enough to incorporate normative legal analysis if one considers only ontology and epistemology, recognizing that normative work does not have a methodology in the same way that an empirical study does.

The second complication involves the evolution of legal thought away from the formalist set of assumptions that would parallel the positivists in the social sciences, as defined by Lincoln and Guba. Early nineteenth- and late twentieth-century formal legal scholars reflected the positivist tradition in their attempt to fully apprehend legal principles (like "laws" in the hard sciences) based on rational argument alone (Turley, 1987). The formalist model, however, lost currency within legal scholarship beginning with the legal realism movement in the 1920s, with its recognition of the indeterminacy and subjectivity inherent in the work of courts and legislatures, as well as that of legal scholars (Brest, 1993; Trubek & Esser, 1989). I suggest that even legal scholars who profess to be positivists (or those labeled as positivists by others) recognize that discovery and objectivity necessarily have some limits. I propose that the same is true of social scientists in the wake of postpositivist thought. Positivist notions of discovery, truth, and objectivity remain goals and regulatory standards for many

in the social sciences, but there is a recognition that in measuring concepts like human perception there will always be at least a sliver of indeterminacy or subjectivity within the analysis of the data. Purely speaking, that sliver causes one to move into the postpositivist paradigm.⁸

Even with these complications, scholars engaged in postpositivist, critical, or interpretive work, whether they are legal scholars or social scientists, have comparable notions of what they can come to know about the world and how they can come to know it. Members of the first group, legal realists, are postpositivists. They focus, generally, upon understanding the social factors that influence legal principles, often through applying the results of scientific and social scientific inquiry to legal situations. Legal realists do not make the same claims about apprehending a universal reality purely objectively as the nineteenth-century legal formalists who preceded them, but they still view these concepts as standards. In other words, they recognize that words are indeterminate and that judges operate in a political environment. Accordingly, they reject the formalist conception of law as some pure truth waiting to be discovered and reported with a full degree of certainty and objectivity (Brest, 1993; J. Gordon, 1993; R. Gordon, 1993; Nussbaum, 1993; Rubin, 1988; Fischl, 1987; Turley, 1987; G. White, 1986; Crampton, 1986; Trubek & Esser, 1989; Teachout, 1981; G. White, 1983). The second group, critical scholars, join their peers in the social sciences in the belief that scholars cannot divorce values from inquiry or argument, scholarship should influence specific social change, and reality is shaped over time by social values (J. Gordon, 1993; R. Gordon, 1993; Menkel-Meadow, 1992; Eskridge & Peller, 1991; Porter, 1991; Hutchinson, 1989; Trubek & Esser, 1989; Harrison & Mashburn, 1989; Caudill, 1987; Williams, 1987; Turley, 1987; Fischl, 1987; G. White, 1986; Unger, 1986). The third group, interpretive scholars, parallels scholars in the humanities and social sciences who base their work on understanding multiple realities by employing hermeneutical, phenomenological, and structuralist methodologies (Campos, 1993; J. B. White, 1993; Rubin, 1992; Papke, 1989; Mootz, 1988; Hekman, 1986; Kennedy, 1985a; Kennedy, 1985b; Kronman, 1981).

Sample and Method

I conducted in-depth interviews with 22 legal scholars at three institutions, in one discipline, law. My sample included legal scholars working in each of the three paradigms, a mix of scholars representing different identity-based characteristics, as well as doctrinal⁹ and theoretical scholars. Because I aspired to suggest new potential explanations rather

than verify existing ones, I employed grounded theory as a research method (Strauss & Corbin, 1990; Strauss, 1987; Glazer, 1978; Glazer and Strauss, 1967).

Sample

I studied faculty at three leading law schools, which I call Right University, Center University, and Left State University.¹⁰ These are very different schools of roughly similar reputation. Each is a consensus "top twenty" school in various reputational rankings, with private Right U. generally in the "top five" and private Center U. and public Left State in the "teens." Two of these faculties, Right U. and Left State, are particularly noted for their work within a certain school of legal thought, each with very different paradigmatic features. Left State is a "hotbed" of critical scholarship. It was central in the critical legal studies movement and has long been associated with the study of law using sociological methods. Right U. is known as the home of law and economic scholarship, a model that begins and ends with postpositivist paradigmatic assumptions and generally attracts politically conservative scholars. Center U. has an overall reputation for more conventional scholarship, but has law faculty working in each paradigm.

At the three institutions, I interviewed law faculty working within the realist paradigm as well as those who identify with the critical and interpretive paradigms. I included only full-time regular faculty, given their focus on both teaching and research, and excluded part-time and clinical faculty. I began the process of selecting my sample by contacting the associate dean for academic affairs at each school by letter and telephone, explaining my study in some detail, and asking him to identify scholars on his faculty working in either the critical or interpretive inquiry paradigm. I then asked him to identify the two or three scholars on his faculty who most closely matched the demographic characteristics — years as a law professor, gender, race, and ethnicity — of each critical or interpretive scholar. I treated those working in conventional paradigms differently from those working in alternative paradigms because there are so few alternative paradigm scholars at each law school.

I collected approximately 40 names of faculty members, roughly 15 each at Left State and Center U. and 10 at Right U. (which has a smaller faculty). I contacted these faculty members by letter, briefly explaining the study and asking them to participate in it, scheduling via telephone or electronic mail an appointment to meet in their offices if they were willing and able to participate. During these calls, I also identified other potential interviewees through a "snowball" technique, asking each person to identify appropriate prospective interviewees, whom I later con-

tacted by letter and then by telephone. My sample included both younger and more experienced faculty, men and women, and majority and minority scholars. I oversampled for women and African-Americans, as well as alternative paradigm scholars. On the Right U. faculty, which numbers approximately 30, for instance, I interviewed two of the three women, the only African-American, the only critical scholar, and the only two interpretive scholars. I also interviewed both conventional and alternative paradigm scholars. Because paradigm choice is typically more important for alternative paradigm scholars — it typically thrusts them outside of the mainstream of their discipline and institution — my findings tend to focus on their experiences. Finally, I chose to stop with 22 participants, because the data I was collecting were becoming repetitive, and the categories into which the data were falling were saturated.

Method

I provided each faculty member with a short description of my study prior to the interview. In addition, I reviewed two or more recent published articles by every interviewee and used them to provide our discussions with context through substantive concepts with which we were both familiar that we could use as examples. In addition, particularly for alternative paradigm scholars, the articles also revealed something about the paradigmatic assumptions of the author. In critical and interpretive work, the stance of the writer often takes on an equal importance to the substantive arguments made. Accordingly, the articles offered a device for triangulation in my data collection.

I conducted each initial interview face to face at the participant's office, using a semistructured interview protocol, and tape recorded each. The interviews took approximately 90 minutes each. I conducted follow-up interviews with most of the participants, either in person, by telephone, or via electronic mail. Prior to engaging my actual respondents, I conducted background interviews with several law faculty at a law school of similar academic reputation in order to help refine my questions and "pilot test" my interview protocol. Finally, I assured the participants that I would keep their identities confidential.

As a foundation for my inquiry into how paradigm decisions have shaped scholars' professional lives, I asked several questions focused on (1) placing scholars into a typology of paradigms based on their ontological and epistemological assumptions and (2) understanding what might have influenced each scholar to adopt or consider these assumptions. Other questions explored difficulties or opportunities attributable to paradigm choices, the focus of this article. I addressed what law faculty perceived to be the influence of working within a particular inquiry

paradigm on: (1) resistance to their scholarly work by others; (2) opinions about the value of the work done by those working in other paradigms; (3) publication in mainstream law journals; (4) professional advancement within a discipline and at an institution; and (5) collegial relationships, both on a faculty and in the scholarly community at large. I also asked each person several very general and more personal questions, particularly regarding: (1) scholarly interests and current work; (2) decisions about what types of questions to study; (3) the nature of his or her law school, particularly the mix of people working in different paradigms at the school and the acceptance and support of critical and interpretive scholars there; (4) the nature of legal scholarship relative to work in the social sciences and humanities; and (5) the question whether the paradigms shape the way in which faculty colleagues interact (whether critical scholars form a community, for instance).

I analyzed and interpreted over 350 pages of interview transcripts using the constant comparative approach. Glazer and Strauss (1967) identify four specific overlapping stages within the method, which I followed in order. First, I coded the data that I collected into as many categories as possible, each of which represented a different broad concept. In doing so, I began to consider the dimensions of the concepts, their relationships with other concepts, and the conditions under which they are pronounced or minimized. Second, I compared the overall data with the properties of the categories. Third, I continued to analyze and further refine the categories and their relationships and gradually began to develop "theory" by reducing these to higher-level concepts. Fourth, I refined these concepts into propositions. Through the constant comparative method, therefore, I moved from the empirical to the conceptual and theoretical. I verified the "theory" throughout the data, eliminating some emerging concepts and hypotheses as they were refuted (Conrad, 1982; Glazer & Strauss, 1967). As mentioned, I stopped collecting data to generate and substantiate my "theories" when "all of the major concepts and their interrelationships have been theoretically saturated" (Conrad, 1982, p. 281). In other words, I concluded my data collection when I could find no additional data to embellish the emerging "theories." The categories conformed to the degree possible with the standard that they be internally consistent (internal convergence) but distinct from one another (external divergence) (Marshall & Rossman, 1995; Guba, 1981). I also searched throughout the process for negative instances and rival structures, two other internal checks on my decisions (Glazer & Strauss, 1967).

Advantages and Limitations

The research method that I selected has two chief advantages in an exploratory study. First, grounded theory lends itself to the development of

potential explanations for unaddressed research questions and is conducive to including perspectives outside of the expectations of the researcher. Second, a strength of the approach is reaching what is significant about individual cases instead of focusing solely on generalizations and incorporating the individual voices of various subjects.

One primary limitation of my approach is that, given the limited number of institutions I visited and the relatively small number of faculty I interviewed, it would be inappropriate for me to generalize broadly from the results of my exploratory study, either to law or to other disciplines. In addition, I met with the practical difficulties of doing qualitative research, particularly incorporating the perspectives of the subjects in negotiating meanings and outcomes and learning as a researcher to include my own voice in my work.

Findings

I found that scholars, including law faculty, work within an overall faculty culture determined, in part, by their inquiry paradigm. Paradigm culture is distinct from, but connected with, the cultures already suggested by the research literature: disciplines, institutions, the profession, and society. These cultures combine to shape the philosophies, ideologies, values, assumptions, expectations, attitudes, and norms that define scholars' careers.

Still, these individual cultures are distinctive. For instance, disciplines — including law — have their own unique cultures. In law, scholars are concerned with a particular body of knowledge, operate with a particular language and set of symbols, and have a unique publication system. Unlike paradigm cultures, however, where basic assumptions place scholars into a single paradigm, scholars may work in more than one disciplinary culture. For example, law professors commonly have professional grounding in fields like economics, sociology, and anthropology. These more interdisciplinary legal scholars are similar to faculty who work in alternative paradigms. They conduct their scholarship within a set of faculty cultures — a separate disciplinary culture, in this case — that places them outside of the mainstream of the discipline.

Similarly, scholars also work within cultures unique to their institutions. Like different universities, different law schools recruit faculty and students with different credentials, have different institutional roles and missions, are located in different physical settings, and value different attributes for tenure and promotion.

The other faculty cultures, those associated with the overall society, the academic profession, and academe — likewise shape scholars' careers (Tierney & Rhoads, 1993; Austin, 1990). These are constructs

marked by a focus on pursuing and disseminating knowledge, recognition of the importance of academic freedom, commitment to intellectual honesty, value given to collegiality, and commitment to service to society. Unlike with the paradigm, discipline, and institution, however, these cultures are more universal. Regardless of their paradigm, discipline, and institution, all scholars work within a similar overall society (perhaps one bounded by nationality or a similar construct), follow the general norms of the academic profession, and function within the set of relationships that constitute academe.

As with deciding to become an academic, choosing to study a discipline, or accepting employment at an institution, the choice to work within a particular paradigm is also a choice to work within the culture attendant to it. It is also a decision to work within a resulting climate. Like the other cultures, the paradigm thus may influence several aspects of scholars' careers, though not necessarily equally. Notably, the paradigm shapes the (1) questions they decide to pursue; (2) audiences to which they write; (3) methods and models they employ; (4) standards that others apply to judge their work; (5) reward system under which they operate; (6) access they perceive that they have to influence decision makers; and (7) pressures or personal rewards attendant to advancing causes.

These seven suggested aspects of paradigm culture parallel and intersect with disciplinary, institutional, and other cultures and together shape accompanying climates within which legal scholars work on a daily basis: the acceptance of their work by colleagues and how they come to view the work of colleagues who work in other traditions. For alternative paradigm scholars, the resulting environment is sometimes one marked by marginalization and isolation, although alternative paradigm legal scholars often reported a positive climate for their work in several respects.

Questions pursued. How scholars frame the questions they pursue is one aspect of their professional lives shaped by the paradigm culture in which they work. Alternative and conventional paradigm scholars often pursue the same topics in law by asking different types of questions. In the study of a particular statute in law, for instance, a critical scholar might attempt to interpret its meaning by focusing upon social and historical forces that afforded certain groups in society influence in its passage; an interpretive scholar might focus on analyzing the text itself, perhaps by deconstructing it; a realist scholar might explore the data underlying the decision of the legislature. There are countless approaches available to address any question, of course, but scholars working in different paradigms in the same disciplines typically frame their work in ways distinctive to their paradigm.

In a similar manner, scholars grounded in different disciplines frame

research questions about similar topics differently. In looking at the same statute, an economist might concentrate on its economic impact, an anthropologist might focus on its cultural significance, and a historian might center on its lineage. In addition, law scholars with advanced preparation in another discipline commonly employ different frameworks and techniques, working not only in law but also in another distinct disciplinary culture. In law, these interdisciplinary scholars often view themselves as outside the mainstream of legal scholarship, particularly those who work with economic models.

Questions pursued are also shaped by institutions. Several Left State U. legal scholars, for example, adopt the "law and social action" approach in their work typical of their faculty and institution as a whole. Similarly, several faculty members at Right U. use economic models to frame their legal scholarship, a practice developed at Right U. and still respected by faculty members there. These scholars may be outside the mainstream of their discipline, but are generally accepted on their particular faculty because they work in a community of like-minded colleagues at their institution.

Audience. Each culture, including paradigm culture, influences the audiences to which scholars write. A pronounced aspect of the disciplinary culture in law is that law professors address audiences beyond other scholars. Legal scholars have traditionally attempted to influence judges, policymakers, and practitioners with their work, something that sets them apart from scholars in the humanities or even in many of the social science disciplines. Alternative paradigm law scholars, however, report being more likely to write to other academicians and less likely to address practitioners. Practitioners are commonly interested only in scholarship directly relevant to their work within the legal system and may have little use for the principal product of critical scholars, namely books and articles that attack the foundations of the system. In other words, practicing lawyers focus upon concrete questions in their daily work and likely have neither the time nor the inclination to address the broader theoretical issues that critical or interpretive scholars are more likely to raise than conventional paradigm scholars.

In addition, critical scholarship, particularly feminist work, has the potential to be "marginalized" within law, suggesting what might also be the case in other academic disciplines. One critical feminist scholar suggested the downside of publishing in the growing number of "women's" law journals: "I know of a number of women's journals, . . . but often one doesn't want to publish there because it's marginal and you want good feminist stuff broadly read, not just in journals that nobody but feminists look at. So, the women's journals aren't really a total answer

to the problem." Another young critical feminist scholar noted that she chose to publish her "big" feminist work in a conventional law journal of some prestige, as opposed to a women's journal, because she "didn't want to be only in the feminist catalogue."

Institutional culture also influences audience. Legal scholars at Left State U., for instance, purported that their faculty colleagues write not at all for practitioners but solely for other scholars and for policymakers (perhaps due to the large proportion of alternative paradigm scholars on the faculty). In contrast, scholars at Center U. focused much of their attention on writing to serve practicing lawyers, through writing treatises on such subjects as corporate taxation or securities regulation (two examples of work from faculty that I interviewed). On both faculties, these values naturally shape various academic rewards, including tenure and promotion.

Methods and models. Different paradigm legal scholars typically work with particular methods and models, each of which represents distinctive values and practices. Critical scholars commonly use feminist theory or critical race theory; interpretive scholars commonly work with hermeneutic techniques or phenomenological models; realists often adopt quantitative approaches from the social sciences. There are norms and mores attached to each paradigm that define a particular culture that transcends disciplines, institutions, and the other ingredients in overall faculty culture. In other words, scholars across disciplines and institutions use the same methods and models, and it is their paradigm that often determines which models and methods they adopt. Although interpretive legal scholars apply their distinctive training in working with hermeneutics, for example, they are still attempting to interpret meaning, just as other law professors. They may analyze text, instead of classroom interaction (education) or cultural rituals (anthropology), but their goals are similar to other interpretive scholars working in other disciplines.

Accordingly, disciplinary culture may have limited influence on how scholars use models and methods. Still, models are sometimes constructed from particular knowledge bases and are generally judged according to the conceits of disciplines, so disciplinary culture has some influence. Similarly, institutional culture appears to be an even less direct influence on the methods and models that a scholar adopts. Little suggests that a critical legal scholar at one type of institution, for instance, would work with different methods and models than someone exploring the law through the lens of critical theory at another institution. The critical scholars at Left State U., Center U., and Right U. did not work with different methods and models. What did differ was not the

institutional culture in which they worked, but climate: how receptive their department and university colleagues were to their alternative paradigm scholarship.

Standards. Paradigms also influence standards applied to assessing individual pieces of scholarship. Because they work outside of the paradigmatic mainstream within their discipline, standards are most often an issue for alternative paradigm scholars. These scholars commonly reported being concerned about whether the conventional scholars who control their discipline — and the law review student editors who commonly have little background in traditions other than the legal realism that dominates law school classrooms — apply appropriate standards to assess their work. One critical scholar noted: “The standards that the majority applies to scholarship are often much different from those accepted within the critical community, but often in publishing decisions, editors apply the traditional standards to critical work.” Another critical scholar suggested that student editors “don’t understand” his type of scholarship, “not because what I’m doing is particularly skewed, but because they simply don’t have the background.” “I think that it’s very unreasonable to think that a second-year law student or a third-year student is going to comprehend everything that is going on there. So, then, that leads to a certain sick business of chasing fads, one or another.” These comments likely echo alternative paradigm scholars writing in other disciplines. Even though journal editors in other disciplines are more likely to be familiar with alternative paradigm scholarship, but they are still less likely to be fully grounded in it. This suggests the possibility of the application of inappropriate standards, however well intentioned an editor might be.

The issue of inappropriate standards is not limited to alternative paradigm faculty, but may apply to interdisciplinary scholars. Realist law scholars who work with economic models also complained that law review editors neither appreciate the subtleties of their work nor judge it according to the correct standards. According to one law and economics scholar, student editors have very little sense of “whether economic analysis is sound . . . or whether the work you’re doing is novel or interesting or new. They have very little basis to distinguish my paper from another one. The result is disappointing. You get papers that are accepted by the fancy law reviews all the time that fail to provide anything new or make substantial contribution to the research.”

Similarly, the legal scholars who wrote in both the legal literature and in various social science fields — anthropology, sociology, economics — did not necessarily complain about inappropriate standards, but did comment that an article submitted to a law review would likely be

judged much differently than one offered for publication elsewhere, once again underscoring the influence of the discipline on standards. One scholar, an anthropologist, suggested the difference in evaluative standards among the disciplines. She commented that submitting the same work in her two disciplines required much more than changing footnotes and bibliographic citations from the APA style accepted in anthropology to conform to the "Blue Book" form required in law reviews. She often had to adjust her basic theoretical approach to the material.

Finally, like paradigmatic and disciplinary cultures, institutional culture also has an impact upon the standards applied to judge scholars and their work. Tenure review, for instance, is different at various law schools, as at various universities. If a scholar at Left State U., for instance, chose to do doctrinal work while everyone else on the faculty was doing theoretical work, he or she might eventually encounter a negative tenure decision. A similar set of issues might apply were a critical scholar to work in isolation on an otherwise realist faculty, as the single critical scholar at Right U. reported.

Rewards. Similar to the issues of standards and acceptance, paradigms influence academic rewards — a topic on which several informants focused at length. Once again, alternative paradigm scholars appear to be most affected by their paradigm choices. Although they perceived their work to be generally accepted within their disciplines and institutions, they noted several potential professional obstacles attendant to working with critical theory or interpretive models in law. They reported, however, both the advantages and disadvantages of their position.

Younger scholars, in particular, noted the opportunities inherent in working with a emerging set of ideas, but one that is still generally recognized by the whole discipline, particularly in attracting funding and getting their work published. Several critical scholars commented that there is an active market for unusual and alternative scholarship in law reviews: "I think that depending on the place, depending on the law school, there are student editors who are really looking for things . . . [that are] kind of out of the ordinary a bit. Right now, there's maybe more of a market in the legal field for stuff that's interdisciplinary and critical and [not the] standard old doctrinal analysis." Several also reported that people have responded well to their work: "I am surprised, I mean everything has just gone so well. I feel the various audiences have been very responsive to my work. And pretty much what I wanted to do I've been able to do. . . . I feel like I'm not suffering any bias. I think I'm coming along at a moment in history when the issues I want to write about and the approach I want to take are not peripheral, not ghettoized,

not marginalized. That's not to say, everybody is just going to like it." The same scholar commented that her department and university was particularly willing to support her work, giving her summers off and extra research money.

The comments of alternative paradigm on academic rewards differed based on institution. One critical scholar summed up the attitude of her alternative paradigm colleagues at Left State U.: "I've certainly had a very positive reaction from my colleagues, who are incredibly supportive and just wonderful colleagues. And the fact that I write about . . . stuff which is obviously less mainstream [is] a non-issue and I'm encouraged to do that." In contrast, their status as outsiders sometimes has a negative impact for critical scholars in tenure and hiring on certain faculties, as at Right U. A critical scholar there — the only person on her faculty doing that kind of work — wrote a critical feminist article prior to receiving tenure and suggested that she would not have passed the tenure vote "except that they needed a woman on the faculty at the time." She strongly doubted that the otherwise all-male faculty would have hired her, had they known what would become her research agenda.

In the end, working outside of the paradigmatic mainstream still has the potential to negatively influence the academic rewards that a scholar might receive. These negative impacts appear to have diminished as alternative paradigm scholarship has matured, however, becoming increasingly familiar to those across disciplines and institutions. In addition, even though the alternative paradigm scholars at Left State U. reported positive experience overall, none suggested that their legal realist colleagues fully embrace their work: they understand and support it, but they often dismiss its contribution to the production of knowledge. In other words, critical work is merely tolerated by mainstream scholars, keeping alternative paradigm scholars on the margins of disciplines and institutions.

Perceived access to influence. Scholars working within different paradigms, disciplines, and institutions perceive their access to influence decision makers differently. Several critical scholars seconded what their realist colleagues postulated: that critical scholars tend to write more often for other legal scholars than for practitioners. Most agreed that alternative paradigm scholars view themselves to have less direct access to influence, perhaps because they sense that decision makers may be uninterested in challenging social and political conventions.

Access to influence is also a significant institutional issue. At Right U., both doctrinal and nondoctrinal scholars (though not the critical scholar on the faculty) focused much of their attention on writing for decision makers. Legal scholars at the "top five" ranked Right U. Law School

have more likely been exposed to the highest levels of power — as Supreme Court clerks, for example — than scholars at less well-regarded institutions, perhaps even “second ten” law schools like Center U. and Left State U. Right U. scholars, therefore, report feeling more comfortable writing directly to decision makers; they more readily believe that those in power will seriously consider their ideas and thus focus more of their work toward these ends. In other words, being on the law school “fast track” inspires scholars’ perceptions about their own influence.

Advancing causes. Alternative paradigm scholars, particularly critical scholars, are often more interested than conventional paradigm scholars in advancing particular causes through their work. Social activism is an essential part of critical scholarship; the ontology and epistemology of critical scholarship centers upon critique, transformation, and emancipation. Several critical scholars suggested that their social activism affords them a unique type of professional reward, one unavailable to scholars working in “neutral” paradigms. In addition, women and minority scholars who pose questions about gender and race within critical frameworks may be more apt to feel a more personal connection with their research subjects and have a more direct stake in their findings than realist scholars studying securities law, for instance. Similarly, because they are in the minority, critical scholars may feel particular pressures to advance their cause (and not always positive pressure). One scholar noted, “The social pressure that goes along with” being in a “group identified by ideology:” “. . . they limit each other, they put social pressure on each other to stick with the ideology and not let any gaps show; . . . [there are] pressures to stay true to the cause.”

Discipline also has a connection with activism, though a less pronounced one than paradigm. Regardless of their paradigm, legal scholars often offer direct recommendations to audiences who craft public policy. Scholars working in law may perceive that their brand of social activism has the potential directly to affect change, particularly given the position of influence that some legal scholars hold, as opposed to scholars writing in a discipline less at the center of the decision-making process in society. Finally, different institutional cultures may reward advocating causes differently. At Left State U., for example, advocacy is held in esteem, whereas certain types of activist scholarship may be less valued at institutions like Right U.

Interpretations

Adopting a specific paradigm — and the culture that goes along with it — shapes scholars’ careers. Paradigm choice has the most impact

when it takes legal scholars outside of the mainstream of the discipline, as with legal scholars working with critical theory. The same is true of legal realists making the choice to work with economic theory. Although alternative paradigm legal scholars have secured a position within the discipline that provides them with certain opportunities, there are still difficulties involved in working on the edges of a discipline. In essence, legal scholars generally have accommodated alternative paradigm scholarship, but in traditional terms. Alternative paradigm scholars may have access to funding, publication, tenure and promotion, and related rewards, but they still have to operate within an overall system defined by traditional assumptions about what scholars can come to know about the world and how they can come to know it.

Legal scholars working within the mainstream of their discipline — nonempirical interpretive scholars and realist scholars working outside of economic theory — did not suggest that their paradigm choices had any real impact on their professional lives. One interpretive scholar seems to sum up the reason why his paradigm choices did not have any real impact on his professional advancement when he suggests: “I’m not doing anything outside of recognized approaches to legal scholarship, so people are comfortable with it.” These scholars still control the discipline, and those in the mainstream need be less concerned than alternative paradigm scholars with acceptance within their field.

Accordingly, paradigm culture has a clear influence upon whether scholars believe that their colleagues — on faculties, at institutions, and in disciplines — appreciate their contributions to the production of knowledge. Overall, realist legal scholars, because they work within the clear mainstream of the discipline in a long-established tradition, often have an easier time gaining respect for their work than scholars working in alternative paradigms. Still, alternative paradigm scholars, particularly at Left State U., reported positive experiences in their scholarly careers and daily professional lives. Nevertheless, they were still somewhat wary of the potential negative impact of working outside of the paradigmatic mainstream.

Critical scholars working alone or relatively alone with critical theory on a particular faculty felt the impact of their paradigm choices most profoundly in their daily professional lives. One suggested how it affects her on a daily basis: “You’d have to [interact with feminist scholars elsewhere] because you’ll go crazy if you’re the only feminist. Who are you going to talk to? [With] most people you talk to about feminism, you’ll be arguing about square one for the rest of your life and it’s going to be the most interminable, boring [experience, and] it never gets you anywhere intellectually. Sometimes it’s real important for somebody who’s

doing something different from the people in their building, to have networks outside of it." Similarly, in describing the sometimes hostile climate for alternative paradigm work in her discipline, one critical feminist scholar noted that anti-feminist literature often receives quick and prominent attention, especially when written by a woman: "Anything that's critical of feminism [written] by a woman, especially if [she's] supposedly a feminist, is especially likely to be published. You especially see that in the media; that if you want to be published in the New York Times, identify yourself as a feminist and say something anti-feminist and you'll be there. I think the same thing applies, to some extent, with law journals. If you say something critical of feminists and you're a woman, you're especially likely to be covered." The same scholar pointed out that student law review editors are often hostile to controversial or critical scholarship "and raise ridiculous questions or ask for ridiculous authority."

Even though they often remain outsiders within certain settings, critical scholars seem to have mastered the skills necessary to achieve in a realist-dominated academic environment. One mid-career critical scholar noted that she sometimes avoids talking "about things in feminist language" and attempts "to talk about things in a way that lawyers have historically talked about things." Her interest is more with persuading other law professors and effecting change than with theoretical niceties. In a recent article, for instance, she tackled a feminist topic, but within traditional legal categories that are comfortable to conventional scholars (and even practitioners). Another young critical feminist scholar takes the opposite approach. She has decided to disregard the conventional wisdom against writing "things from a feminist point of view" until one gets tenure: "I have a long tenure track here and life is short." She adds that she feels "a little insulated by publishing in a good place."

Conclusion

In the end, these paradigm cultures are similar to the more fully researched and better understood cultures unique to particular disciplines or institutions, each of which operates within the context of the cultures associated with overall society, the academic profession, and academe. Once scholars embrace a set of paradigmatic assumptions, they work in distinct environments as a result, just as with the choice to work within the other cultures. In order to appreciate faculty culture, therefore, it is essential that we recognize the impact of the paradigm. Current research on faculty culture has provided important insight into the codes and mores, both express and implied, that shape the overall environment in

which faculty work. The portrait is incomplete, however, without a consideration of the influence of paradigm culture on the whole. Paradigm culture may be very much at the root of what several commentators suggest are the growing "culture wars" within academe, not just in law but across academic fields.

Whether the current environment marked by scholars holding such basic differences in their core premises about society and research about it, including different ideas about the law, is sustainable or desirable is an open question. It is, however, a question of great potential interest to administrators and faculty both in law and similar disciplines. Unless one argues that it is not possible for a group of scholars to interact meaningfully when they work within such different paradigmatic cultures, understanding the disjuncture between scholars working within different paradigms is an essential starting point if accommodation and acceptance are viewed as appropriate ends.

My exploratory study may prompt consideration and refinement of these potential influences and impacts and suggest others: whether they focus upon legal scholars and legal scholarship in greater depth, make comparisons between law and other disciplines, or concentrate upon a related discipline or set of disciplines. Although law is a unique discipline, it is sufficiently similar to work in the humanities and social sciences to offer a foundation on which to extend our understanding of the impact of paradigm cultures in law to other academic disciplines. Several fields in the humanities and social sciences resemble law in the slow emergence and incomplete acceptance of critical and interpretive models.

These are critical issues. Scholarship is becoming increasingly pluralistic in several academic fields, including law. As a result, there is an growing dissidence among scholars practicing their crafts in increasingly different conceptual worlds. In order to understand this trend within higher education, we must come to appreciate its roots, the influences upon the adoption of paradigmatic assumptions, and the impact of these decisions upon scholars' careers. Listening to legal scholars talk about their work and their colleagues is an initial, necessary step in considering these ideas. The next one is to test, refine, and extend these explanations.

Notes

¹I define law as an academic discipline and legal scholarship as the scholarly research published primarily in student-edited law reviews and journals that is its product, not as judicial opinions or the work of practitioners.

²In a companion study, I investigate whether scholars make a conscious decision to adopt one or another of these very basic sets of paradigmatic assumptions. In addition, I

explore what factors might persuade legal scholars to work within a particular paradigm; why they come to hold particular views about the possibilities and processes of their research.

³Weiland suggests that work inspired by Kuhn, along with attempts to classify the disciplines, notably the influential work by Biglan, which Lattuca and Stark (1995) trace in detail, does not explore the "underlying cognitive dimensions and their developmental implications for the form of an academic career" (page 271). In other words, these models take an external approach and are less concerned with human subjects, namely particular scholars. My study may help to answer Weiland's concern.

⁴Academic culture incorporates the hallmarks of being an academic, including the focus on pursuing and disseminating knowledge, the recognition of the importance of academic freedom, the commitment to intellectual honesty, the value given to collegiality, and the commitment to service to society (Austin, 1990).

⁵The culture associated with academe as an organization represents the values of collegiality coupled with autonomy as the appropriate organizational context within which faculty should work (Austin, 1990; Austin & Gamson, 1983).

⁶Some commentators refer to contemporary legal scholarship, particularly the natural law tradition, as being formalist (Chow, 1992; Weinrib, 1988; Patterson, 1992). Minda (1989) argues that the "law and economics" tradition fits within the formalist tradition. I submit that these commentators mislabel these schools of thought as formalist if they use the term formalist in its early-twentieth century meaning. Even though these contemporary formalist scholars accept a realist ontology and an objectivist epistemology, my reading of their work is that they accept these assumptions as standards and not as attainable ends in themselves; they are postpositivists not positivists.

⁷The sociology of knowledge literature is in general agreement with Guba and Lincoln's typology. Other scholars sometimes differ in terminology used to label particular paradigms (especially in the interpretive area) and sometimes define particular critical theories — feminist, ethnic, Marxism, or cultural studies — incorrectly as particular paradigms (Denzin & Lincoln, 1994).

⁸In a related study, titled "Scholars and Their Inquiry Paradigms: Exploring a Conceptual Framework for Classifying Inquiry and Inquirers Based Upon Paradigmatic Assumptions" (Toma, 1997), I tested my conceptual framework using the same sample as here. In the study, I disaggregated positivism into both positivist and postpositivist paradigms. Even though positivist scholars were technically postpositivist under the "sliver of indeterminacy or subjectivity" argument, they believed themselves to be positivist and I treated them accordingly for the purposes of the article.

⁹Doctrinal legal scholarship focuses upon organizing legal doctrine to serve the daily needs of practitioners not upon proposing new theories or constructions.

¹⁰In doing so, I further bounded my study, looking only at scholars at elite institutions. I do not address the question of whether scholars at less elite institutions share an experience similar to the faculty that I study in their paradigm choices.

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Review Essay

Aptitude Revisited: Rethinking Math and Science Education for America's Next Century, by David Drew. Baltimore, MD: The Johns Hopkins University Press, 1996. 254 pp. \$35.95

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David Drew's *Aptitude Revisited: Rethinking Math and Science Education for America's Next Century* tackles the problem of the nation's supply of mathematicians and scientists. He admits that he originally set out to study science education but soon realized that mathematics education was intrinsically linked to both educational and occupational achievement, hence this volume. In his effort he synthesizes and integrates literature including his own research and evaluative studies. He liberally uses technical reports from research organizations, doctoral dissertations, and other extant literature to paint a clear picture of problems with the mathematics and science pipelines. His aim is to communicate this body of work to policymakers and practitioners as well as other researchers in ways that might change the status quo. His premise is that a national consciousness raising is needed. "Teachers, parents and the students themselves must recognize that virtually every child has the capacity to master mathematics and science and should be taught these subjects. This is true for females as well as males, for poverty stricken students as well as those from more affluent backgrounds, and for persons of every ethnicity. Beyond consciousness raising, the research results provide guidance as to how the reform of science education can proceed most effectively" (p. 2).

Like so many other books addressing this problem, Drew's book begins by describing deficits in the numbers in all areas of mathematics and science study at the postsecondary level. His analysis differs, however, in that he places part of the blame squarely on educators and a system that insists on using measures of aptitude as a way of systematically screening students from the study of mathematics and science either physically or mentally.

The book is divided neatly into two parts, the problems and the solutions. Refreshingly, Drew devotes as many pages to solutions as he does to problems. Chapter 1 reminds us just how serious this problem

is. The facts and figures supplied by nearly fifty articles and technical reports paint a bleak picture indeed, particularly for women and minorities who hope to study mathematics and science-based fields. Naturally, this chapter contains a brief discussion of the importance of technology and training in the new economy and the new technological society. Drew presents dismal and familiar facts from a study of science achievement by elementary and high-school students in 17 countries. Students in the United States performed in the middle of the pack at the age of 10, 14th out of 17 at the age of 14, and last as high-school seniors. Chapter 2 discusses scientific literacy among the American public. The examples he uses, sometimes appalling and bordering on depressing, serve as warning to educators. Chapter 3 delves more deeply into comparisons between students in elementary and secondary education in our country and other countries. For examples, in a 1991 international science assessment for 13-year-olds, U.S. students scored below those from every other country except Ireland and Jordan. Spain and Slovenia scored higher than the United States. The 66% of U.S. students who did not study science in their senior year is higher than for any other country that reported data for a mid-80s assessment. Drew points out that the United States produces high achievers in mathematics and science, but systems that are less selective, i.e., pay less attention to aptitude, produce greater proportions of students with at least moderate achievements in science and mathematics. Chapter 4 focuses on science and mathematics at the college level. Here Drew focuses on who studies mathematics and science in college and who does not, how courses are presented, and what kinds of scientific literacy is being acquired.

Drew begins Part 2 of his book, focusing on solutions, by reminding us of his premise that science education has become a vehicle through which "the inequalities of our society are perpetuated and exacerbated. Women, people of color, and poor people are underrepresented" (p. 119). Among the issues that Drew discusses in chapters 4 and 5 arguably the most crucial is the importance of self-concept and self-esteem. He cautions that some may criticize his advocacy for the development of self-esteem and mistake it for an advocacy for grade inflation or the watering down of courses. Drew reminds us that throughout the book he has advocated raising expectations for all students as well as showing students how to meet those expectations. In this he holds teachers and students equally responsible for the task. Included within this chapter are extensive demographics describing for us the proportions of students we leave behind in our limiting focus on the importance of aptitude in science. Chapter 6 focuses on trail-breaking research by several schol-

ars, among them Treisman and Bonsangue, which capitalizes on group work, development of self-efficacy, and self esteem.

Finally in Chapter 7, Drew makes the case for a curricular reform that emphasizes talent development. Though much has been learned about the teaching of mathematics and science, particularly at the K through 12 level, very little has changed in college-level mathematics and science classrooms. Drew provides other examples that show us compellingly why curricular reform is needed. For example, in a study using the National Assessment of Educational Progress data, 9-year-olds rated mathematics as the best liked of 5 academic subjects. Thirteen-year-olds rated it second best, and 17-year-olds rated mathematics the least liked subject. Another study estimated that students encounter more new words in a high-school biology book than in two years of instruction in a foreign language. Drew describes in detail a number of successful curricular innovations.

As a former mathematics lecturer at the college level and as a researcher who studies students' success at all levels of the mathematics and science pipeline, I find Drew's analysis eminently useful. He pays attention and devotes adequate time to the description of demographic and historical trends, but his book is unusual in that he also gives equal time to solutions. Drew has amassed an impressive body of exemplars for mathematics and science education so that he is able to show us how we can do what needs to be done. The onus is on us to follow the examples.

Much of Drew's discussion of aptitude evolves into a discussion about attitude, whether it's the traditional American anti-mathematics culture, where people joke regularly about inability to balance checkbooks or work with numbers, where they declare openly that they cannot do math and that only people of Asian heritage are likely to be good at math; and where parents and teachers think nothing of declaring that girls are not good at math despite equal performance through elementary school. These attitudes translate into a later attitude on the part of educators and policymakers that being able to perform mathematics well is a special gift, an aptitude, and that some have it and some just don't have it.

A uniqueness of this volume is that when available literature fails to answer a question, Drew conducts his own analysis. For example, does the United States score low on comparative studies with other countries because a greater proportion of our students remain enrolled in our educational system through high school? When Drew examined scores for the top 1% of age groups and then the top 5% in data from a 1970s study of 19 countries, the United States moved in rank from 14th to 9th and from 14th to 8th, respectively with the restrictive sampling, well below countries at the highest levels.

Part of the solution to America's problems may lie in the revision of the curriculum as well as in expectations of educators. For example, textbook comparisons demonstrate differences in the timing in which the curriculum is presented. American textbooks are described as having a spiral curriculum in which the same topics appear year after year at incrementally advanced levels. Indeed this finding parallels studies from the just released TIMSS (1996) study that discovered that American students and teachers actually work very hard at trying to cover a very broad range of material year after year. Meanwhile, their counterparts in other countries, spend much more time in depth on fewer topics. Additionally, the study found that American parents seemed to be more satisfied with their children's achievements than Japanese or Chinese parents and that American students and parents attributed success in mathematics to ability, whereas Chinese and Japanese attributed success to hard work.

While Drew's book provides ample examples and models for those who are intimately involved with the management and development of mathematics and science courses, his book provides questions for higher education researchers as well. Why are we reluctant to turn our own critical skills toward the higher education classroom? Drew views science and mathematics as keys to power, influence, and wealth in our society and laments the ways in which educators consistently discourage women, poor people, and disadvantaged minority students. He summarizes by reminding us of the limited usefulness as well as the destructive effects of the use of aptitude.

In a study of attitudes toward science, students who began with a more positive attitude toward science took a traditional botany course. Nonscience students took an introductory course in human anatomy and physiology stressing relevance and high interest activities. Following the two courses, the nonscience students had a more positive view of science than the science students, who had a less positive view than they had had previously — the beginning of Drew's hints at problems with our curriculum. Drew points out that although we have a pretty good idea of the prestige of various colleges and universities, our understanding of which institutions actually foster effective teaching and research is relatively primitive. He suggests that such a focus might be more important than our current obsession with absolute rankings.

Fortunately, some studies and models exist that provide colleges and universities that care with solutions to these problems. Throughout the book mathematics, in particular calculus, has been viewed as a critical point in the students' continuation in the mathematics and science pipeline. As a matter of fact, the initial levels of college mathematics

may be the only college-level course in which students, by and large, are expected to have absolutely no opinion. In the typical college mathematics classroom, students are not expected to read ahead, and they appear at the class waiting for the expert at the front of the room to demonstrate exactly how to solve a problem. Only then are students expected to be able to mimic what the teacher has modeled on the board. Where is the human agency in this model?

My one minor criticism might be that Drew's evidence sometimes seems repetitious, but perhaps that is due to the pervasiveness of that evidence. With few exceptions (Stage & Kloosterman, 1995; Whiteley & Fenske, 1990) very little work on the mathematics/science pipeline in the college years focuses on students' actual experiences. We learn from Drew that most science and mathematics students who survive the pitfalls of precollege sexism, tracking, and low expectations run the gauntlet of the college experience and for the most part end up changing majors. Postsecondary educators like to say that we are in the business of educating; Drew's evidence suggests that we are merely sorting.

Drew makes much of differences in attitudes and self-concept between men and women. In a study of both males and females in the top 10% of SAT scores, far more males, 63.7%, describe themselves as being in the top 10%, compared with females at 47.8%. Even more dismaying is that women's concept of themselves continued to drop while they were in college so that by their senior year only 23% of those women described themselves as in the top 10%. As educators in postsecondary education, we must ask ourselves whether we are in the business of eroding students' self-concepts, and why that erosion seems to come at the expense of women and minorities particularly. Finally, erosions seemed to be exacerbated at more selective institutions, the very institutions we describe as high quality. What do we mean by high quality?

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Book Reviews

Shaping the College Curriculum: Academic Plans in Action,
by Joan Stark and Lisa Lattuca. Needham Heights, MA:
Allyn and Bacon, 1996. 480pp. \$41.95

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In this postmodern era, it is unfashionable to heap praise on any volume aimed at covering a topic no less unwieldy than planning, implementing, and evaluating college curriculum. Still, from the perspective of one who is skeptical of grand theory, I take the irreverent position that Joan Stark — ably assisted by Lisa Lattuca — has written the most compelling and useful book on college curriculum of the past quarter century.

Shaping the College Curriculum is a valuable contribution to the literature on college curriculum in several major ways. To begin with, Stark and Lattuca advance a conceptualization of the college curriculum as an “academic plan” made up of eight components: purpose, content, sequence, learners, instructional processes, instructional resources, evaluation, and adjustment. While openly building on the work of others — notably Dressel (1971) and Conrad and Pratt (1983) — the authors’ schema clearly goes beyond extant curriculum models in several important ways. For one, it is more comprehensive, not least because it incorporates the “learner” as a major feature of curriculum planning. For another, it is the most elegant model in the literature: it manages to capture complexity and richness in curriculum planning and evaluation and at the same time retains conceptual force and clarity. The concept of the “academic plan” at once extends and deepens our understanding.

A no less important contribution of this book to the literature is its comprehensiveness: It is, by far, the most comprehensive text on college and university curriculum. Anchored in the concept of the curriculum as an “academic plan” — which fuels the text throughout — the book is divided into three substantial parts. The first, “Defining Curriculum,” explores a variety of perspectives and frameworks that educators have used to discuss curriculum, and in so doing it explores historic and contemporary efforts to reform curriculum. The second, “Developing Curriculum,” describes the concept of the academic plan in detail, discussing the eight components of the plan across course, program, and institutional levels. The third, “Enhancing Curriculum,” explores the myriad roles of administrators and faculty leaders in making “adjustments” in the curriculum and in bringing proposed changes to fruition. Throughout, the authors draw extensively on the research Stark conducted as director of the National Center for Research to Improve Postsecondary Teaching and Learning, the senior author’s lifetime of involvement in curriculum research and planning, and the extensive literature on curriculum. Though certain literatures are overlooked — such as the literature on peer teaching and learning — the book, on balance, represents an impressive threading together of a diverse range of sources and perspectives.

This book should be no less useful to faculty and administrators than it is to scholars, in particular those involved in revitalizing programs, who are likely to find the "academic plan" a useful conceptual template for raising issues and generating discussion about alternative ways of developing, modifying, and evaluating programs. Significantly, all of the major features of the academic plan can be applied across "levels" — from courses to programs to collegewide curricula.

To be sure, this book is not without limitation, beginning with the simple observation that the "academic plan" — although potentially robust — has not been subject to extensive empirical testing. But from my perspective, three limitations — all connected to the "academic plan" conceptualization of curriculum — deserve mention. For one, in advancing the "academic plan" as the central task in curriculum development, the authors embrace a rational (structural-functional) view of curriculum that places primary emphases on such traditional considerations as purpose and content and the instructional process. Without diminishing the virtues of a rational model, its elevation in this text is unaccompanied by serious treatment of the recent rise of a "constructivist" view of curriculum that emphasizes curriculum as a dynamic cultural construct in which competing definitions of what counts as knowledge are constantly being negotiated (Haworth & Conrad, 1995; Tierney, 1989; Palmer, 1983). Definitions matter, for practitioners no less than scholars.

For another, by failing to problematize how knowledge is defined, approached, and taught through its emphasis on rational planning, Stark and Lattuca scarcely discuss the newly emerging knowledge claims from interpretivist, feminist, critical theory, poststructuralist, and multicultural scholarship. Curriculum scholars and practitioners looking for connections between the so-called "culture wars" of the last decade and the development of curricula will doubtless find the book disappointing in this regard. For still another, by defining curriculum design as a rational process properly placed in the hands of administrators and faculty, the authors also fail to consider the possibility that high-quality programs may be less dependent on well-designed structures and processes than on inviting students no less than faculty to invest in mutually supportive teaching and learning that emphasizes, for example, peer teaching and learning, risk-taking, diverse and engaged participation, and the cocreation of vibrant learning communities (Haworth & Conrad, 1997).

Notwithstanding its limitations, this book is essential reading for anyone interested in the study and practice of higher education curricula. For in advancing a new conceptualization — the "academic plan" — that at once draws on a wide range of literature and deepens our understanding, Stark and Lattuca have provided us with a template against which curriculum design, implementation, and evaluation will be judged for years to come. As such, Joan Stark has done what few senior scholars do: complete an exceptional book near the end of a career that does justice to a lifetime of vigorous intellectual and professional accomplishment.

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Lost Talent: Women in the Sciences,
by Sandra L. Hanson. Philadelphia:
Temple University Press, 1996.
220pp. \$39.95

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Women are much less likely than men to major in or pursue careers in engineering, math, and science. This is usually explained as a consequence of the social barriers women face and the various choices women make (such as child bearing), which limit their participation in science careers. These choices, in turn, are explained by powerful gender roles learned by girls and boys (Zuckerman, 1991). Many researchers have focused on the science education "pipeline" and the role of early educational choices in shaping larger education and career options. Girls are less likely than boys to take high-school math and science classes, in part because they are not perceived as "useful" and in part because math and science are perceived as male terrain (AAUW, 1992). In *Lost Talent: Women in the Sciences*, Sandra Hanson draws together factors identified in earlier research to explain the attrition of talented girls and women from the science pipeline.

Hanson seeks to evaluate both the extent of this talent loss and the process by which women leave science by focusing on the time period from junior high school through college. Assuming that talent is equally distributed between the sexes, Hanson argues that "young talented women are more likely to leave the sciences than are young men because of structural barriers and selection processes." Her conceptual framework proposes that attrition from science can be measured by nonparticipation in a variety of math and science experiences. She posits that variances in science experiences are the consequence of both gender and differential access to resources. She then investigates both the direct and indirect effects of gender through an extensive array of family, school, and individual resources. This book is situated in the social stratification tradition (and also explores the role of race and class) rather than in the attrition or the career development literature.

Hanson relies on three nationally representative longitudinal survey data sets for this book. Primarily, she uses the NCES High School and Beyond (HSB) data, focusing on the high-school sophomores, who are surveyed four times at two-year intervals (1980, 1982, 1984, 1986). These data are bolstered by the National Educational Longitudinal Study (NELS) of eighth-graders at two time

points (1980, 1982) and the Longitudinal Study of American Youth (LSAY) of seventh-graders for four years (1987-1990). In combination these data sets provide information on the goals and experiences of young people from seventh grade through four years after high-school graduation.

The contribution of this book is its ambitious attempt to describe the complexity of young people's educational experiences by bringing a large number of variables to bear as both outcome and causal measures. As a result, it is full of tables, which provide a detailed look at the data that underpin the conclusions. Hanson introduces complexity in three important ways.

First, she looks at both math and science, instead of one or the other. Second, Hanson emphasizes a longitudinal process by exploring how young people's experiences change over time. Hanson's dependent variable is participation in the "science pipeline," by which she means an array of experiences with science. She categorizes these experiences into four "experience pipelines": achievement (grades, achievement test scores, postsecondary education, and work in a science field), access (math and science courses taken and planned, college major, and work in a science field), attitudes (positive feelings about math and science courses, career and educational goals), and activities (use and access to calculators and computers).

Third, she correlates these experiences with a wide range of resources — family, school, and individual — as well as with gender. She finds, for example, that women who pursue science are more likely to have parents who are highly educated and who are involved in their children's social and academic lives. Although there were few in the sample, young African American women with the same resources as other women are more likely to participate in science, which she correlates with strong encouragement and role modeling from their mothers.

Hanson's efforts are well intended and point researchers in an important direction. However, the limitations of the HSB data hinder the testing of her model, leading to questions about the findings.

Hanson's distinctions between attitudes, access, and achievement are never clearly delineated. Without a clear conceptual definition, the allocation of the various measures into categories is unclear. For example, should planning to take additional high-school math and science courses be categorized along with actual course taking as "access" or along with expectations for getting a college degree as "attitudes"?

Furthermore, several of the measures used to describe "achievement" are measures of general academic achievement (e.g., attending a postsecondary institution) not of achievement in science or math. This undermines our ability to distinguish between achievement in science and achievement in school. Other research has shown that more women than men are now attending college, which helps explain Hanson's finding that young women score well relative to young men in this dimension.

After operationalizing each pipeline at each of the four time points, Hanson plots various pathways (or "trajectories") in each pipeline. These trajectories represent profiles of student experience. Students can, for example, stay in or out of the pipeline at all four time periods, or begin in the pipeline and leave at a later time point, or move in and out erratically. (Being "in" the pipeline is defined as being in the top quartile of a composite scale of all the measures at one time point.) Seven trajectories in each pipeline form the backbone of Hanson's

data analysis. The connections between gender and family, school and individual resources, and the various trajectories are described in depth.

Although this is a useful conceptual initiative, its operationalization is hampered by the limited number of proxies of each dimension of experience, particularly in the later years of the data set. The access dimension, for example, is represented by five measures in the 1980 survey, nine measures in the 1982 survey, but only four in 1984, and two in 1986. These few measures do not allow for clear distinctions between pathways and lead the reader to wonder about the conclusions based on them.

These caveats aside, the important contribution of this book is the effort to draw a dynamic picture of experiences in order to capture the complexity of students' life paths. Hanson provides an intriguing glimpse of the ways in which students can simultaneously act like and unlike proto-scientists. Next we need more data to identify what experiences and resources are critical in pushing students in different directions. An empirically grounded model of common pathways and decision points will be a useful tool to policymakers interested in reclaiming lost talent. Future researchers will be able to build on Hanson's ideas to provide the outlines of such a model.

Hanson provides ample evidence that gender plays a strong direct and indirect role in women's attrition from the sciences. The next step is to move beyond the identification of critical factors to an explanation of the causal process. How is it that students come to decide to leave science? How do young women leverage resources to persist in science? This step will help move us to a workable theory of talent loss.

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Service-Learning in Higher Education: Concepts and Practices,
by Barbara Jacoby and Associates (Foreword by Thomas Ehrlich).
San Francisco: Jossey-Bass, 1996. 335+ pp. \$32.95

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A Blueprint for Action

Service learning engages students in community service that is meaningful to the community and to student learning. It has gained an impressive degree of momentum during this decade and, particularly during the past five years, has emerged as an educational force to be reckoned with. The question Tom Ehrlich raises in the foreword of Jacoby's book, "So what took so long?" is interesting and provocative. Both sacred (e.g., private liberal arts colleges) and secular

(e.g., land-grant universities) traditions in American higher education have deep roots in a tradition of service. John Dewey established early in this century the philosophical basis for a pedagogy that finds strength in urging students to test their knowledge through experience, and professional schools have long provided examples of the importance of integrating theory and practice. Indeed, what took so long?

Two sources of influence have converged to produce the current reexamination of the role that community service can play in the broad spectrum of higher education. The first of these is leadership. The emergence of service learning has been facilitated by ten years of leadership by Campus Compact, an organization of over five hundred twenty college and university presidents committed to emphasizing the value of student community service. The leadership of Campus Compact has been complemented by Presidents Bush and Clinton, who enacted legislation to involve young people and college students in their communities. Currently these programs are housed in the Corporation for National Service and The Points of Light Foundation. The leadership of these groups has been supplemented with financial resources to stimulate growth. In addition, many other organizations quickly responded by providing other resources (e.g., technical assistance), public forums, and conferences. For higher education, these included the National Society for Experiential Education, the American Association for Higher Education, the Council for Independent Colleges, the United Negro College Fund, and the American Association of Community Colleges.

The second source of influence that helps explain "why now" is the compatibility of service learning with other changes in higher education. As Eugene Rice (1996) has cogently summarized, higher education is in a period of transition from teaching to learning, from independent discipline-based work to interdisciplinary team-oriented work, and from isolation to engagement. These trends provide the basis for higher education to explore Boyer's (1994) vision of "The New American College," which redefines the work and structure of the academy by engaging colleges and universities in addressing society's problems. Service learning fits well with discussions that include collaborative learning, the role of professional service in the academy, student outcomes, engaging students in active learning that enhances persistence and achievement, institutional accountability, general education, and building partnerships with communities.

To date much of the practical advice and intellectual work that supports the implementation of service learning has been written by and for those involved in the work. Jane Kendall produced a critically important set of books that brought difficult-to-find materials together in 1990. The National Society for Experiential Education and Campus Compact have published additional materials.

Jacoby's book is an addition to the literature on service learning that is both important and timely. It is important because it brings together a set of well-crafted chapters that are high in quality, comprehensive, and represent the best work to date on the topic. The chapters are grouped into one set that discusses the theories and principles of service learning, a second set on designing curricular and cocurricular service learning experiences, and a final group focusing on implementing and administering service learning programs. The chapters provide an excellent variety of perspectives, which range from individual

courses and cocurricular projects to organizational and policy issues. The chapters also summarize theoretical frameworks within which service learning has developed, and they provide thumbnail sketches of successful examples. In addition, the appendices present a compilation of organizations that support service learning.

The book is timely because it presents service learning in a manner that will now be accessible to a broader range of audiences in higher education and the community. Previously, those who were interested had to work to find relevant material, wrestle with issues of jargon, and discuss their interest with a small group of practitioners who were often not at their home institution. Jacoby's book presents the best side of service learning to many in higher education who can benefit from learning more about it: college presidents, deans, faculty, student affairs professionals, and those in faculty leadership positions. This larger audience needs to add service learning and community outreach to their conversations. Jacoby's book, along with the *Michigan Journal of Community Service Learning* (edited by Jeff Howard) and a series of monographs on service learning in individual disciplines (edited by Edward Zlotkowski), will contribute to broader conversations in such a way that service learning can have an impact on higher education that extends beyond piecemeal courses and becomes a salient part of the fabric of higher education (Zlotkowski, 1996).

In a field that stresses the interdependency of theory and action, it is fitting that this book represents the conceptual underpinnings and the practical aspects of engaging students in community service. The promise is that more of those who play a role in shaping the future of higher education will explore the potential that service learning can play in redefining faculty roles, enriching student life and learning, and balancing service with teaching and research within the academy. In doing so, this volume does indeed provide higher education with a "blueprint for action" as it moves into the next century.

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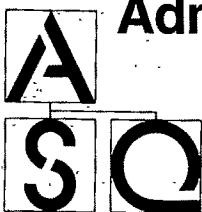
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